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THE COMMONWEALTH OF MASSACHUSETTS

ANNUAL ACCOUNTABILITY REPORT FOR VOCATIONAL EDUCATION

FOR FISCAL YEAR 1983

JUNE 1984

GOVERNMENT DOCUMENTS
COLLECTION

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I. INTRODUCTION

The Massachusetts State Department of Education presents this Annual Accountability Report for Occupational Education for fiscal year 1983. As stated in Public Law 94-482, any state receiving funds under the Act is required to submit an annual accountability report for each fiscal year included in the five year state plan. This report provides information on the achievement of state goals, program enrollment, and financial information. Responses to advisory council recommendations are also included. The report covers the time period between July 1, 1982 and June 30, 1983.

As stated in the Board of Education's Policy on Occupational Education (1976), "schools are expected to educate students in the skills, knowledge and attitudes necessary to determine and achieve fulfilling career goals." The policy further notes that education for employment should include the following:

The ability to compute and communicate;

An understanding of one's talents and interests;

The capacity to work with others to accomplish tasks;

An understanding of the conditions, requirements and benefits of the world of work and enterprise;

The ability to understand and select from a range of career opportunities; and

The general and specialized skills required for employability in a changing economy where skills are increasingly required for several work fields during a career.

To summarize, the board has made a commitment to prepare youth for employment by requiring a sound general education, instruction in attitudes and understanding of the world of work, and skill specific training.

II. ACHIEVEMENT OF STATE GOALS

Administration

GOAL 1: TO ADMINISTER EFFECTIVELY VOCATIONAL EDUCATION IN MASSACHUSETTS

The Board of Education, through its Division of Occupational Education, is the state agency responsible for the administration and supervision of vocational education programs operated by local education agencies and community colleges.

The Division of Occupational Education is charged with the responsibility of coordinating, promoting and establishing vocational, technical, adult employment training and retraining, apprenticeship programs, occupational skills training for displaced homemakers, and of making recommendations to the Board of Education with respect to these programs.

Vocational education is administered through the Associate Commissioner and the following six bureaus: administrative services; financial management; planning, research and evaluation; postsecondary; program services; and firefighter training. There is also an Office of CETA. In fiscal year 1983 there were 119 staff (April count) working in a central office, six regional centers, and a firefighting academy. This number included 78 professional staff and 41 support staff.

The administrative costs of operating the Division of Occupational Education require the Commonwealth to match at 50% level federal funds made available to support the administrative costs of the Division.

V. Analysis of the Distribution of Funds for Fiscal Year 1983

Distribution of Funds

New funding formulas have been developed for the proposed allocation of Public Law 94-482 funds by category among eligible recipients. The formulas are for use through fiscal years 1983 to 1987. They have been designed to increase the utilization of Federal Vocational Education Act funds for improving vocational education programs and services by providing a better match between limited dollars and the urgent program needs.

Among the advantages of the new allocation methodology are:

1. the addition of recent school lunch data for measurement of concentration of low income individuals, along with AFDC data;

2. the measurement of eligible recipient need through indices which compare the data of eligible recipients directly to statewide averages;

3. the recognition of relative program costs by additional or weighted counting of pupils enrolled in multi-year state approved intensive job skills training programs for total secondary, special needs, and limited English proficient student populations;

4. updating of the population income measure;

5. the upgrading of minimum allocations for some funding categories to assure that funded programs are large enough to have measurable impact;

6. allowing regional school districts to participate in the special disadvantaged allocation distribution, as long as their index of need is significantly higher than the statewide average, and their membership includes at least one city (population of 50,000 or more); and

7. recognition of equalized effort in support of occupational programs.

Prioritizing

Priority for applicants located in economically depressed areas with high rates of unemployment and inability to provide resources for vocational education is accounted for in the present formula. The combined index of each school district was compared to the Areas of Substantial Unemployment Masterlist for Massachusetts, Labor Surplus Areas, and Unemployment Rates provided by the Massachusetts Division of Employment Security. These data indicated that the new formula gives priority in funding to the cities and towns located in economically depressed areas and areas where youth unemployment is high (unemployment rates for youth, ages 14 to 22, is not available by city and town). Therefore, the combined index allows the Commonwealth, in considering the approval of local applications, to give priority in the distribution of funds to those applicants located in economically depressed areas. Cooperative education program funds are not distributed by a separate formula but are included in the Subpart 2 formula distribution and are granted by need expressed in the Local Plan and Application; the combined index allows the Commonwealth, in considering the approval of local applications for cooperative education programs funds, to give priority in the Subpart 2 formula distribution to areas of high youth unemployment.

To highlight the need for encouraging new programs which meet emerging manpower needs, funds are made available to eligible recipients. These funds, in addition to the funds distributed by formula are granted through the Request for Proposal process.

Formula Factors Federal Vocational Education Act funds are allocated among local education agencies based on their relative financial ability, relative concentration of low-income individuals, relative occupational education effort and enrollments.

Relative financial ability is measured by computing the estimated full market value of taxable property per person for each city and town and dividing this by the statewide average. Estimates of full market value, or Equalized Valuations, are computed by the State Department of Revenue and certified to the state legislature every two years for the preceding year. The latest data are the 1980 Equalized Valuations which were so certified on or about January 1, 1981. The most recent official population figures for all cities and towns are from the 1980 census.

Relative concentration of low-income individuals is measured by Aid to Families with Dependent Children (AFDC), per capita income data, and school lunch data. For each city and town, the percentages of children ages 5 to 17 for whom AFDC payments are being made is computed and then divided by the statewide percentage. These data match the state definition of economically disadvantaged or low-income pupils for distributing state educational aid. The latest available official AFDC information, obtained from the State Department of Public Welfare, is from 1980. School information is available from School Census counts required of all municipalities annually. The latest available figures represent school year 1980-81.

Since per capita income is a component of the definition of economically depressed areas and serves as an indication of relative financial ability, it is used to measure concentration of low-income individuals. Per capita income from the 1977 census for each city and town is divided by the statewide per capita income.

Full market value of taxable property per person indicates the tax resource base through which a majority of local expenditures are supported. The relative ability of persons to support additional local (property) taxation depends on income as well as property wealth and existing tax rates.*

The percent of school lunches which are provided free or at a reduced charge is also used to measure concentration of low-income individuals. This index measures the number of low-income individuals actually enrolled in a particular school district. Latest available figures were from October 1980.

The index of equalized effort in support of occupational programs gives recognition to eligible recipients who spend a greater proportion of available education funds for occupational programs. The data used was for school year 1980-81.

Construction of an Index The formula factors discussed above are used to construct separate indices of relative financial ability, concentration of low-income individuals, and occupational education effort. Each index compares data for that recipient with statewide averages. As a result of this process, eligible recipients can be directly compared to each other.**

Eligible recipients serving a particular city or town utilize the municipality's data in computing their index values. When a local education agency draws students from several communities, index values are based on a weighted average of the cities and towns served.

The indices have been developed to measure eligible recipient need. The higher the fiscal ability index value, the poorer the local education agency. The higher the concentration of low-income individuals, the greater the low-income index value.

A single index has been developed to measure relative financial ability. Three indices were developed (per capita income AFDC percentage and percent of free/reduced lunch) to measure concentration of low income individuals. A single index measures occupational education effort. All of these indices are then added together to derive a combined index to measure overall eligible recipient per pupil need.

*Property wealth is a capital stock measure, whether a result of earned or unearned past income less consumption. Property taxes and per capita income are expenditure and revenue or flow measures. The ability to meet property tax levies depends both on a person's total capital stock and current earning flow.

**Since these indices are cardinal (not ordinal) measures, there is no need to normalize information as with other types of formulas, therefore, the subjective decisions involved in translating ordinal information into dollar per pupil allocations are avoided.

These indices are defined and explained on the following pages. In the examples, we assume that there are only three eligible recipients in the state (A, B, C) and their service areas do not overlap.

A. Relative Financial Ability Index

Definition

$$\text{Relative Financial Ability Index} = \frac{\text{Statewide Equalized Valuation Per Person}}{\text{Equalized Valuation Per Person for Eligible Recipient}}$$

Example

Table 1

Relative Financial Ability Index

	1	2	3	4
Eligible Recipient	Total Equalized Valuation	Population	Equalized Valuation Per Person	Index
A	$1,000,000	100	$10,000	$\frac{10,000}{10,000} = 1$
B	2,000,000	100	20,000	$\frac{10,000}{20,000} = .5$
C	5,000,000	600	8,333	$\frac{10,000}{8,333} = 1.2$
TOTAL OR AVERAGE	$8,000,000	800	10,000	

Eligible recipients A, B, and C have their total equalized valuation and populations listed in columns 1 and 2 of Table 18. Their respective per person valuations are computed in column 3. The relative financial ability index for each eligible recipient is listed in column 4. Note that the lower the property wealth per person, the higher the relative financial ability index.

B. Concentration of Low Income Individuals Index

Definition

$$1/3 \times \frac{\text{Statewide Per Capita Income}}{\text{Eligible Recipient Per Capita Income}}$$

$$+ \; 1/3 \times \frac{\text{\% of School Attending Children Receiving AFDC for Eligible Recipient Service Area}}{\text{Statewide Aver. \% of School Attending Children Receiving AFDC}}$$

$$+ \; 1/3 \times \frac{\text{\% of Recipient's School Lunches Which Are Free or Reduced}}{\text{Statewide \% of School Lunches Which Are Free or Reduced}}$$

= Concentration of Low Income Individual Index

Table 2

Concentration of Low Income Individuals Index

	1	2	3	4	5	6
Eligible Recipient	Per Capita Income.	Per Capita Index	Percent of School Attending Children Receiving AFDC	AFDC Index	Ratio of Free and Reduced Lunches to Total Lunches	Lunch Index
A	$10,000	$\frac{10,000}{10,000} = 1$	6%	$\frac{6\%}{5\%} = 1.2$	.12	$\frac{.12}{.1} = 1.2$
B	$12,000	$\frac{10,000}{12,000} = .83$	2%	$\frac{2\%}{5\%} = .4$	.054	$\frac{.054}{.1} = .54$
C	9,000	$\frac{10,000}{9,000} = 1.11$	10%	$\frac{10\%}{5\%} = 2$	.156	$\frac{.156}{.1} = 1.56$

Statewide Per Capita Income = $10,000 State Average = 5% State Average = .1

Table 19 lists the per capita income, the percentage of school attending children receiving AFDC and the ratio of free and reduced school lunches to total school lunches in columns 1, 3, and 5 for our three eligible recipients (A, B, C) as well as statewide averages. In columns 2, 4, and 6 the per capita income index, AFDC index, and lunch index are computed for these eligible recipients.

C. Occupational Education Effort Index

Definition

$$\frac{\text{Occ. Ed. Direct Expend.}}{\text{Total Direct Expend.}} \times \frac{\text{Total Operating Expend.} - \text{State Aid}}{\text{Equalized Valuation}}$$

Recipient's

$$\frac{\text{Occ. Ed. Direct Expend.}}{\text{Total Direct Expend.}} \times \frac{\text{Total Operating Expend.} - \text{State Aid}}{\text{Equalized Valuation}}$$

Statewide Average

= Occupational Education Effort Index

Table 3

Occupational Education Effort Index

Eligible Recipient	1 Occupational Education Effort	2 Effort Index
A	.9	$\frac{.9}{1} = .9$
B	.6	$\frac{.6}{1} = .6$
C	1.2	$\frac{1.2}{1} = 1.2$

State Average = 1

Table 20 lists the occupational education effort and the effort index for our three eligible recipients.

D. Combined Index

There are two forms of the combined index - Combined Index 2 is used only with funding source 110b1 (Disadvantaged); combined Index 1 is used with all other funding sources.

Definition

Combined Index 1 = 2/3 X Relative Financial Ability Index + 1/3 X Per Capita Income Index + 1/3 AFDC Index + 1/3 School Lunch Index + 1/3 X Occupational Education Effort Index

Combined Index 2 = .8 X Relative Financial Ability Index + .4 X AFDC Index + .4 X School Lunch Index + .4 X Occupational Education Effort Index

Table 4

Combined Index

	1	2	3	4	5	6
lligible cipient	2/3 Relative Financial Ability Index	1/3 Per Capita Income Index	1/3 AFDC Index	1/3 Lunch Index	1/3 Effort Index	Combined Index 1
A	2/3 X 1 = .67	1/3 X 1 = .33	1/3 X 1.2 = .4	1/3 X 1.2 = .4	1/3 X .9 = .3	2.1
B	2/3 X .5 = .33	1/3 X .83 = .28	1/3 X .4 = .13	1/3 X .54 = .18	1/3 X .6 = .2	1.12
C	2/3 X 1.2 = .8	1/3 X 1.11 = .37	1/3 X 2 = .67	1/3 X 1.56 = .52	1/3 X 1.2 = .4	2.76

Combined index 1 is computed in column 6 of Table 21 for each of our eligible recipients. This rall index of per pupil need is based on the prior derived relative financial ability, per capita ome, AFDC, school lunch and effort indices. Combined index 2 is calculated in a similar manner but per capita income index is not used.

How the Formula Works Each eligible recipient's allocation by funding category is based on its combined index and appropriate student count, as well as the state total of funds available.

The process for arriving at allocations for eligible recipients is as follows:

FOR EACH RECIPIENT

1. compute combined index of need;
2. select the appropriate pupil count;
3. multiply the index by the pupil count to arrive at a weighted pupil total;

THEN

4. add weighted pupil totals to determine the state total weighted pupils;
5. divide the state total allocation by the state total weighted pupils to determine an allocation per weighted pupil; and

FINALLY

6. multiply each recipient's weighted pupil total by the allocation per weighted pupil to determine their total allocations.

Table 22 illustrates this process for our three hypothetical recipients, A, B, and C.

Table 5

Process for Arriving at Allocations for Eligible Recipients

	1	2	3
Eligible Recipient	Combined Index	Pupils	Weighted Pupils = Index X Pupils
A	2.1	25	52.5
B	1.12	20	22.4
C	2.76	100	276.0

State Total Weighted Pupils = 350.9

State Total Allocation = $7,001.80

Allocation Per Weighted Pupil = $7,001.80/350.9 = $20 Per Pupil

Column 1 repeats the combined index values previously computed. The pupil counts for each recipient are given in column 2. Multiplying these two figures we arrive at the weighted pupil totals in column 3. The state total allocation of $7,001.80 is then divided by the state total weighted pupils of 350.9 to arrive at an allocation per weighted pupil of $20.

Table 6

Per Pupil Allocations

	1	2	3
Eligible Recipient	Weighted Pupils	Total Allocation $20 X Weighted Pupils	Allocation Per Pupil
A	52.5	$1,050	$\frac{\$1,050}{25} = \$42.00$
B	22.4	$448	$\frac{\$448}{20} = \$22.00$
C	276.0	$5,502	$\frac{\$5,502}{100} = \$55.02$

A, B, and C's total allocations are listed in column 2 of Table 23. They were determined by multiplying weighted pupil totals by $20 per pupil. Per pupil allocations (column 3 of Table 23) are simply total allocations divided by the pupil count.

The equalizing features of this process are apparent from the allocations per pupil. Recipient C (the neediest) receives $55.02 for each of its pupils, while B (the least needy) receives a per pupil allocation of only $22.00.

Allocation Formulas by Funding Source

A. Formulas and Formula Factors

Separate formulas were utilized to determine allocations by eligible recipient for the following funding categories:

1. Handicapped (110A)
2. Disadvantaged (110B1)
3. Limited English Proficiency (110B2)
4. Postsecondary/Adult (110C)
5. Special Disadvantaged

The distribution of these student populations vary widely among eligible recipients depending upon the type of institution and the geographic service area. Separate formulas with separate pupil counts allow Public Law 94-482 funds to be allocated to institutions serving these target population groups on the basis of the number of such students served and overall recipient need per pupil, as represented by the combined index.

One formula was utilized for the allocation among eligible recipients of the following funding categories combined:

1. Balance Subpart 2;
2. Guidance and Counseling (Subpart 3);
3. Consumer and Homemaking (Subpart 5).

Since these funds are for programs available to all students, their distribution should depend upon overall enrollments in addition to the combined index.

Guidance and Counseling and Consumer and Homemaking funds are allocated by separate formulas. Since the total of these and Balance Subpart 2 funds are controlled by the combined formula, Balance Subpart 2 allocations are the residual or difference between combined formula allocations and the sum of Guidance and Counseling and Consumer and Homemaking allocations.

The pupil count data utilized in the allocation formulas are presented in Table 7.

Table 7

Funding Source Index and Pupil Count Utilized in Allocations

FUNDING SOURCE	INDEX	PUPIL COUNT UTILIZED FOR ALLOCATION FORMULA
	SEPARATE FUNDING FORMULAS	
ndicapped .0A)	Combined Index 1	Estimated Special Education Secondary Full-Time Equivalent Pupils Plus Estimated Secondary Special Education Full-Time Equivalent Pupils in Chapter 74 Occupational Programs
sadvantaged .0B1)	Combined Index 2	All Secondary Pupils
ited English ficiency 0B2)	Combined Index 1	Transitional Bilingual Education Secondary Full-Time Equivalent Pupils Plus Estimated Secondary Limited English Proficient Full-Time Equivalent Pupils in Chapter 74 Occupational Programs
cial Disadvantaged 0)	Combined Index 1	Number of Pupils who Withdrew from School for Economic Reasons during the School Year
tsecondary 0C)	Combined Index 1	Chapter 74 Post Graduate/Postsecondary Full-Time Equivalent Pupils or Total Community College Full-Time Equivalent Enrollments Exclusive of Division of Continuing Education Enrollments
	COMBINED FUNDING FORMULA	
ance Subpart 2 and dance & Counseling bpart 3) and sumer and Homemaking bpart 5)	Combined Index 1	All Secondary Pupils Plus Chapter 74 Full-Time Equivalent Secondary Pupils
dance & Counseling bpart 3)	Combined Index 1	All Secondary Pupils Plus Chapter 74 Full-Time Equivalent Secondary Pupils
sumer & Homemaking	Combined Index 1	All Secondary Pupils

Recognized and approved by the Commonwealth of Massachusetts, Chapter 74 provides programs of multi-year intensive job skills training. The per pupil cost of these programs is significantly greater than that of other educational programs, as reflected by a pupil weight twice that of regular programs in the state educational aid formula (Chapter 70). In determining the pupil count for allocating Public Law 94-482 funds, the higher cost of these programs has been recognized by double counting students enrolled in these programs for the Handicapped, Limited English Proficient, Combined and Guidance and Counseling formulas.

The pupil count for allocating Special Disadvantaged funds is the number of pupils who withdrew (dropped out) for economic reasons during the academic year. This count is an accurate measure of the size of the drop-out problem for each eligible recipient.

For Disadvantaged allocations, the index of per pupil need is different from the combined index. Since these funds are used to provide support services and programs to economically and academically disadvantaged pupils, the per capita income index is not included, and the AFDC index is given additional weight.

B. Allocations Levels and Other Factors

The combined index has been designed to give priority consideration in distributing funds to urban and rural school districts which are located in economically depressed areas with relatively high concentration of low-income persons, high unemployment rates, and relatively low financial ability to provide resources to meet the vocational need of the community.

In order to assure that allocations by funding sources are sufficient to have a measurable impact on he delivery of vocational education programs, minimum allocations have been established for several funding categories. Those eligible recipients whose total weighted pupils are insufficient to generate these minimum allocations either receive no allocations for that category, or, in the case of poorer rural communities, have their allocations raised to the minimum level.

Table 7 indicates the lowest and highest allocations by funding source. In addition, other factors regarding the allocations are listed in this table.

TABLE 8

Fiscal Year 1983

Compliance With Federal Funding Requirements

Maintenance of Effort

Fiscal Year	State/Local Expenditures
1982	$213,593,483
1983	$237,095,864
Difference	+ 11 percent

Setaside Percentages

Setaside Category	Fiscal Year 1983 Estimated Expenditures	Estimated Actual Percent of Total Subparts 2 & 3	Required Percent
Handicapped (110A)	$1,165,427	9.6	10%
Disadvantaged:			
Limited English (110B2)	225,824		
Other (110B1)	2,042,412		
Total Disadvantaged	2,268,236	18.7	20%
Post Secondary/Adult (110C)	2,117,412	17.5	15%

Limited English Proficient Population Ages 15-24
Divided by Total Population Ages 15-24 = 2%

Limited English Proficient Expenditures
Divided by Total Disadvantaged Expenditures = 9.9%

Matching Requirement

Fiscal Year 1983 State/Local Expenditures	Fiscal Year 1983 Federal Award	Total
$237,095,864	$15,314,194	$252,410,058
93.9%	6.1%	

or

14 to 1 (State/Local to Federal)

Table (continued)

Breakdown of State/Local Expenditures

Program and activities supported in whole or in part by state and local funds used to match federal funds and for maintenance of effort purposes have met the same conditions and requirements as those supported by federal funds.

Estimated Fiscal Year 1983 State/Local Expenditures	Laws/Regulations/Policies Governing Estimated Fiscal Year 1983 With Federal Conditions & Requirements
Full-Time Occupational Day $132,758,914	
Disadvantaged (Excess Costs) $2,116,032	General Laws: Chapters 15, 70 and 74 Board Policy on Occupational Education
Postsecondary/Adult (Chapter 74) $6,364,892	
Guidance and Counseling $6,684,710	
Community Colleges $20,000,000	Joint Policy on Occupational Education
Construction of Vocational Facilities $7,000,000	Chapter 645 - Acts of 1948 as Amended
Handicapped Vocational (Excess Costs) $6,851,143	Chapter 766 and Board Policy
Limited English Proficiency (Excess Costs) $383,446	Chapter 71A and Board Policy
Consumer and Homemaking (Non-Occ) $17,835,779	Chapter 70 and Board Policy
Industrial Arts $28,632,973	Chapter 70 and Board Policy
Administration $8,467,975	
$237,095,864 TOTAL	

$237,095,864 is the Fiscal Year 1983 state and local expenditure for vocational education in the Commonwealth of Massachusetts used as matching and maintenance of effort requirements.

Excess Cost Requirement

Setaside Category	Fiscal Year 1983 Estimated Federal Expenditures	Fiscal Year 1983 State/Local Expenditures
Handicapped	$1,165,427	$6,851,143
Disadvantaged	2,042,412	2,116,032
Limited English Proficient	225,824	383,446
Postsecondary/Adult	2,117,412	6,364,892

Administrative Expenditures

1. Estimated State Administrative Costs

Estimated State Administrative Costs under Sections 120, 130, and 150 at the federal and state levels are listed below.

	Federal	State	Purpose
Section 120	$950,052	$950,574	General Administration Central and Regional Technical Assistance for Vocational Education Programs at local schools
Full Time Sex Equity	60,000		Activities to eliminate sex discrimination and sex stereotyping
Section 130	252,546	252,684	Data collection, evaluation of local program planning, and RCU administration
Section 150	61,789		Technical assistance to local schools
TOTAL	$1,324,387	$1,203,258	

2. Local Administrative Expenditures

Local administrators costs for local vocational education programs, including administration, planning, and evaluation activities are not reported by separate funding category. Community college administrative expenditures are not included in the figure below.

Funding Categories	Estimated Local Administrative Costs
Section 120	Regular Vocational/Occupational Programs
Section 130	Program Improvement and Supportive Services
Section 140	Special Programs for the Disadvantaged
Section 150	Consumer and Homemaking Education
TOTAL LOCAL ADMINISTRATION	8,467,975

Table 9 - Use of Federal Funds to Meet Program Needs in Fiscal Year 1983

Expenditures by Subpart	Budget	Estimated Actual	Deviation	Reason For Deviation	Description of Results
Basic Grants Programs (Section 120)					
Vocational Education					
Handicapped	$1,417,851	$1,165,427*	$252,424	Setaside requirement will be fully met In FY84 for FY83 funds.	Supportive services, specialized training and individualized assistance were provided for handicapped students enrolled in regular vocational education programs.
Disadvantaged	2,605,702	2,042,412*	563,290	Same as above	Supportive services directly related to improving the ability of disadvantaged students to succeed in vocational education programs were delivered.
Limited English Proficiency	230,000	225,824*	4,176	Same as above	The following services were provided to limited English proficient students: individualized English language instruction in skills training and related theory and aides.
Postsecondary	2,126,777	2,117,412*	9,365	Same as above	Funding programs provided incentives for improved guidance and support services, improved use of community resources and promotion of economic development.
Other Students	3,549,011	2,915,683	633,328	Increased demand for cooperative displaced homemakers correctional programs	Projects resulted in improvement of existing skills training programs, expansion of program offerings and increased enrollment in skills training programs.
Cooperative	161,412	364,974	(203,562)	increased emphasis on cooperative programs by LEA's	By providing effective transition from the vocational training setting to actual employment, job placement rates were improved.

Table 9 - Use of Federal Funds to Meet Program Needs in Fiscal Year 1983

Expenditures by Subpart	Budget	Estimated Actual	Deviation	Reason For Deviation	Description of Results
Guidance/Counseling	$678,049	$629,170	$48,879		Services provided assistance to students in making informed occupational decisions, career decisions, or decisions regarding post secondary education.
Personnel Training	$500,000	$265,140	$234,860	increased demand for other Subpart 3 programs	Recruitment and training resulted in an increased number of female, minority and bilingual vocational education instructors in the state.
Sex Bias Grants	$170,000	$236,740	($66,740)	increased demand to establish non-traditional model programs	Model projects, research and staff training resulted in increased female/male enrollments in non-traditional skills training programs, improved capacity of Department and LEA personnel to insure sex equity.
RCU		$ 47,988	($47,988)		
State Administration(130)	$246,000	$246,000	-0-		
SUB TOTAL	$2,193,759	$2,193,759**	-0-		
Special Programs for the Disadvantaged (Section 140)					
Disadvantaged	$346,323	$319,766	$26,557	balance of subpart funds will be spent in FY84.	Opportunities for comprehensive vocational and exploratory programs with strong guidance and counseling components provided for disadvantaged students.
Consumer and Homemaking Education (Section 150)					
C&H - Depressed	$450,000	$326,348	$123,652	changing demographic data resulted in fewer communities being economically depressed than anticipated	The following programs were provided to encourage both males and females to prepare for the occupation of homemaker and wage earner: consumer education, food and nutrition, family life education, parenting education, child development, guidance and housing and home management.
Non-Depressed	$152,802	$256,234	($103,432)		
Ancillary and Administration	$100,000	$61,789	$38,211		
SUB TOTAL	$702,802	$644,371	$58,431		
102D	$86,557	$86,557	-0-		
GRAND TOTAL	$15,314,194	$ 13,756,306	$1,557,888		

**Expenditures from Subpart 3 during fiscal year 1983 totalled $3,108,226 of which $914,467 was from fiscal year 1982 funds.

Table 9 - Use of Federal Funds to Meet Program Needs in Fiscal Year 1983

Expenditures by Subpart	Budget	Estimated Actual	Deviation	Reason For Deviation	Description of Results
Displaced Homemakers	$200,000	$242,057	($42,057)	greater demand for displaced homemaker programs	Organized nontraditional programs provided the following services for displaced homemakers: assessment of employment objectives, skills training and placement counseling.
Interagency Industry Specific	$400,000	$363,304	$36,696		Short term skills training responded to training needs of the unemployed and the underemployed and to industry's needs for personnel.
Sex Equity Personnel	$60,000	$60,000	-0-		An Office of Educational Equity has been created with full-time personnel responsible for all activities described in Section 104 (b), (A) through (I), of P.L. 94-482.
Correctional Programs	$250,000	$330,852	($80,852)	greater demand for correctional programs	
Student Organizations		$33,856	($33,856)		
State Administration (Section 120)	$984,000	$950,052	$33,948		
SUB TOTAL	$11,984,753	$10,811,853	$1,172,900	balance of subpart funds will be spent in FY84	
Program Improvement and Supportive Services (Section 130)					
Exemplary and Innovative	$349,710	$376,746	($27,036)		Projects jointly funded with the Division of Special Education provided skills training programs for the handicapped.
Curriculum Development	$200,000	$341,975	($141,975)	increased development of model CBVE curriculum	In addition to the funding of curriculum development, the most current curriculum resources were made available to all vocational educators.
Research	$50,000	$50,000	-0-		A state-wide evaluation system has been developed to determine the success and efficiency of vocational education programs.

TABLE 10

Fiscal Year 1983

ESTIMATED EXPENDITURES

Program Area	State and Local Direct Instruction Expenditures By School Districts		Community College Federal (P.L. 94-482) State and Local Expenditures	Instructional Expenditures
	Secondary	Postsecondary/Adult		
01.0000 Agriculture	$3,303,239	$705,425		$77,378
04.0000 Distribution	4,007,395	209,262		474,993
07.0000 Health	2,969,502	2,160,086		303,749
09.0100 C/H Non Occ.	17,835,779	incl. in secondary		577,172
09.0200 C/H Occ. Prep.	2,181,321	370,749		175,446
14.0000 Office	36,069,520	incl. in secondary		4,116,442
16.0000 Technical	3,335,125	1,649,879		507,173
17.0000 Trades/Industry	78,209,392	1,269,491		4,107,088
10.0000 Industrial Arts	28,632,973	-		-
Subtotal	$176,544,246			$10,339,441
Expenditures Not Classified by Program Area	$2,683,420	-0-	20,000,000	-0-
Total Expenditures	$179,227,666	$6,364,892	$20,000	$10,339,441
Total State & Local Instructional Expenditures		$205,592,558		
Total Federal Instructional Program Expenditures				$10,339,441

Statewide Evaluation of Vocational Education Programs at the Secondary Level

A. State Chapter 74 Monitoring and Evaluation Process

1. State Chapter 74 Monitoring Process: During fiscal year 1983 the goal of the Division of Occupational Education was to formally monitor all operational Chapter 74 programs. Programs were monitored by means of desk audits and on-site reviews. This dual system approach achieved three results: (1) updating the Chapter 74 monitoring file, (2) noting any changes or variations in the operation of programs, and (3) determining any actions that should be taken regarding compliance issues and/or problem areas. This process was instituted during fiscal year 1976 and has continued each fiscal year.

   Prior to initiating the monitoring process, a Chapter 74 program listing by school district was compiled from information gathered during the previous year. Information from prior years was further validated by comparing it with the school district's End of the Year Report and, when necessary, the October 1st Enrollment Report. Based on Chapter 74 approval factors, standardized monitoring instruments were sent to each school district with a memorandum of explanation. The superintendent and the occupational education coordinator were informed of this process. Throughout the process, on-going technical assistance was available to school districts on request. When the completed instruments were received at the regional center, they were reviewed for accuracy and compliance with Chapter 74 regulations.

   During fiscal year 1983, 247 school districts operating Chapter 74 programs were monitored on-site in accordance with the Operational Plan. In addition to observing the programs in operation, monitoring instruments were reviewed and validated. The Occupational Education Team Leader coordinated the on-site visits through the occupational education liaison and the superintendent's office. Furthermore, if necessary, the team leader was responsible for organizing the team of professionals needed to review the programs. At the end of the monitoring process, the Division of Occupational Education was informed of the updated status of each region's Chapter 74 programs through a submitted report.

2. State Chapter 74 Evaluation Process In accordance with the State Department's Operational Plan, Chapter 74 program evaluations were conducted in 14 school districts. A goal of the evaluation process was to document compliance with Chapter 74 regulations in selective secondary schools. A secondary goal was to concentrate on those comprehensive school districts in the region operating one or more Chapter 74 programs.

B. Federal P.L. 94-482 Monitoring and Evaluation Process: The effectiveness of Public Law 94-482 vocational education projects was evaluated through the completion of progress reports and on-site visits. During fiscal year 1983 a total of 1248 Quarterly Progress Reports and 642 Final Reports were processed by Department of Education staff. Progress in achieving stated objectives as well as enrollment and financial data was reported. The sequence of the monitoring process is outlined as follows:

1. Award of Federal Funds Agreement Letter: Directly after school district grant projects are formally approved by the Board of Education at their monthly meeting, school districts are sent Letters of Agreement to be signed and returned. Once the signed letters are returned, funds are released in accordance with a system of payment depending on the amount of the grant. Copies of the unsigned letters are sent to the Regional Center and school districts. In addition, the Regional Center is sent a monthly progress report on the status of the disseminated Letters of Agreement. If the letters have not been returned as expected, the school districts are contacted by the Regional Center.

2. Project Underway Form (Start-up Letter): The school district is instructed to complete the Project Underway Form to inform the Division of Occupational Education that the program is in the process of delivering services to students in accordance with stated objectives. When this letter is received, additional funds are released. This procedure can indicate any possible problems in the implementation of the project. Project Underway Forms are submitted to the Regional Center, processed, and sent to the Central Office.

3. Quarterly Progress Reports: The school district is required to complete and submit two Quarterly Progress Reports. The first Report must be completed in total, with the second report an update of the first. The report measures project expenditures against approved budgets, and enrollment figures in relationship to those projected to be served. These reports are submitted to the Regional Center where they are processed and sent to the Central Office with recommendations.

4. Project Line Item Change Request: During the fiscal year of the project, school districts are given an opportunity to amend each project through submission of a line-item change request. Such requests are submitted to the Regional Center, processed, and sent to the Central Office.

5. Project Extension Request: If the school district cannot implement the objectives of a project during the fiscal year, it may request an extension of time deemed necessary to complete the project. These requests are submitted to the Regional Center, reviewed, and sent to the Central Office.

6. Project Remediation Plan: When a review of submitted reports reveals that a project is not meeting its projected enrollment objectives (less than 75% of projections as a standard), action is taken. The school district is sent an Enrollment Remediation Plan Form to be completed and returned within 60 days. In this plan the school district is requested to document its strategies in resolving the enrollment deficiency. The Plan is submitted to the Regional Center, processed, and sent to the Central Office with recommendations. Central Office action is communicated to the Regional Center, and school districts are informed of the status of their submitted plan of action.

7. Project Final Program/Financial Report: Upon completion of the project's a Final Program/Financial Report is mailed to the school district. The school district is given 30 days to complete the report. When received, the reports are recorded and sent to the central office for processing.

All reports identified in the monitoring process are put on file in the Regional Center's project file and Central Office master file. In addition, any related correspondence is kept on file at both locations.

Federal P.L. 94-482 Evaluation Process. Each year a percentage of approved federal projects are evaluated on-site by the regional staff to validate project information stemming from the monitoring process. An explanation of the evaluation process follows:

1. During the summer, in accordance with the Operational Plan, a listing of school districts and federal projects identified for on-site evaluation is compiled. Approximately 247 school districts were monitored on-site. During the on-site evaluation of fiscal year 1983 projects, progress was reviewed, as well as compliance with assurances. The evaluation process takes place throughout the fiscal year.

2. The Occupational Education Team meets during the first part of September to establish an evaluation schedule and to designate appropriate responsibilities. The Occupational Education Team meets to discuss the evaluation process.

3. School districts selected for evaluation are formally notified of the on-site evaluation dates and, if necessary, adjustments are made. Evaluation teams are assigned to the school districts.

4. On the day scheduled for the on-site evaluation, evaluation instruments for each evaluated project are completed. A summary report is written and sent to the school district for response. Copies of the summary reports are sent to the Central Office for review. If there are any noted problems and/or compliance issues that need immediate attention, action is taken. All information is placed in project files.

EVALUATION RESULTS

A purpose of the on-site evaluation is to make recommendations for program improvement. The following examples illustrate ways in which the evaluation process led to improved programs.

Project Bridge, Worcester Public Schools

Project Bridge, a collaboration between the Worcester Public Schools and Norton Company, a high technology manufacturer, provided 375 students with information on employment opportunities. After an on-site evaluation, it was recommended that the project be expanded to include additional business and manufacturing firms in the greater Worcester area. This recommendation was acted upon, and the following changes were made: (1) The name was changed to the School/Business Pairings Project; (2) The Worcester Chamber of Commerce, Jamesbury Corporation, Cincinnati/Milcron (Heald Machine Division) and Wyman-Gordon companies volunteered to actively participate in the program; (3) representatives from the business and education communities periodically met with students in various schools to provide activities in self-awareness, decision making, and employment development. There are plans to expand the program in fiscal year 1984.

Vocational Resource Tutors, Natick Public Schools

Federal funds were used to hire three tutors to support 103 handicapped and disadvantaged students at Quinobin Regional Vocational Technical School. The project was jointly developed by the Central Massachusetts and Greater Boston Regional Educational Centers. Because of the complexity of the project, there were some delays in implementing the project.

Once the program was operating, a series of coordinated on-site evaluation visits were made by regional staff. Recommendations were made which led to the following results: (1) Handicapped and disadvantaged students received remediation in basic academic skills and were given individualized assistance relating to their special needs; (2) an independent study in floral arrangement was developed; and (3) recruitment materials were updated. Because of available support services, students with identified special needs can be encouraged to apply for admission. At the end of the year a survey of Quinobin staff revealed that the majority approved of the program. The program is also supported by the Quinobin administration and staff from the sending communities. The program continues to operate during fiscal year 1984.

Building Maintenance Repair and Renovation, Holyoke Public Schools

Twenty disadvantaged students were trained in all phases of building maintenance repair and renovations. During the evaluation process it was decided that part-time vocational aides should be replaced by two full time vocational instructors for the following year. Another recommendation acted upon was that the building maintenance repair program become part of the carpentry program, thus expanding the offerings in the carpentry program. The entire cost of the program was assumed by the school district in the fall of 1984.

Account I, Franklin Public Schools

Five microcomputers were purchased for the first of a two year accounting program with microcomputer applications. The school system matched the equipment funded by the grant. During fiscal year 1983, 92 students were served. After an on-site evaluation visit, it was recommended that the initial design be modified to insure that the program operation be sequenced and coordinated with other programs using microcomputers at Franklin High School. The recommendation was acted upon and the program modified. The second phase of the project, Account II, was funded for fiscal year 1984.

Culinary Arts, Hampshire Education Collaborative, Easthampton

A major goal of the Culinary Arts program was to prepare sixteen disadvantaged students for entry level employment in the fast foods industry. Evaluation findings noted the program operating with non-commercial equipment. The Easthampton School Department committed funds and an architect designed a new kitchen layout. Two fast food restaurants, Friendly's and Burger King, contributed a grill, fryolator, charbroiler unit, and other commercial equipment. An access door into the cafeteria kitchen expanded the food preparation facilities especially for late afternoon and evening activities. There was a 100% placement record for seniors graduating from the program in June 1983.

Planning: The Division of Occupational Education required the completion of a comprehensive local plan by local school systems desiring federal funds to supplement (not supplant) local and state resources in addressing their established needs in vocational education. The purpose of the local plan was to address the Board of Education approved goals and objectives in vocational education set forth in the five-year State Plan for fiscal years 1983-1987.

The three major goals identified in the State Plan included: (1) access by persons who were unserved or underserved in programs of vocational and occupational education; (2) planning as it related to improvement in the use of all available resources for vocational education and manpower training; and (3) administration of the state vocational education program through the Division of Occupational Education. For each of these goals there were specific objectives to be achieved during the five years of the State Plan. Each objective was further delineated in terms of activities (including programs and services) which the Board of Education supported through the allocation of federal resources matched by state and local resources.

Planning strategies on the local level included: (1) determining existing enrollment patterns and success in placement by collecting annual vocational education student enrollment and follow-up data for submission to the State Department of Education; (2) determining employment needs by examining local labor market information to identify occupations with anticipated employment opportunities; and (3) determining programs to be offered by considering the existing enrollments and the needs of priority populations (handicapped, disadvantaged, limited English proficiency, females in nontraditional areas), and designing curricula and programs to address employment needs using available resources.

The results of the local planning effort included: (1) providing students with quality vocational education programs leading to realistic employment opportunities; (2) coordinating local training resources to meet students needs; (3) improving the process for the distribution of federal funds to assist in addressing student needs; (4) implementing new federal programs; (5) consolidating and reducing paperwork; (6) establishing a realistic relationship between local needs and statewide strategies; and (7) encouraging coordination among vocational education delivery systems.

Computerization in the Division

After surveying Department of Education personnel about their data processing needs, a request for proposal entitled, "Microcomputer Work Stations for Professional Personnel" was issued. A committee reviewed the bids and selected a vendor. The Division of Occupational Education was allocated two microcomputer work stations. Each work station consisted of a system unit, keyboard, C.R.T., and dot matrix printer. Division personnel set up a system to computerize Chapter 74 approval data (state approved intensive skill training programs) and make it accessible to non-data processing staff.

During fiscal year 1983 Division personnel put federal grant information on the main frame computer. Data elements on the computer included: federal budget information by line item, funding source, and program category; enrollment information by race, sex, grade level, and need (handicapped, disadvantaged or limited English proficient); and classification of grants by six-digit USOE code.

Table 11

Fiscal Year 1983

Overall Statewide Enrollments in Occupational Programs
By Major Program Area and Level

Program	School Districts Secondary	School Districts Postsecondary/ Adult	Community Colleges Postsecondary/ Adult	Total
Agriculture	1,797	1,487	93	3,377
Distributive Education	4,777	97	1,374	6,248
Health Occupations	2,308	1,223	4,275	7,806
Consumer and Homemaking (Occ. Prep. & Not Occ. Prep.)	2,802	2,608	887	6,297
Office Occupations	92,133	1,945	16,259	110,337
Technical Occupations	3,006	2,345	7,107	12,458
Trade and Industrial	39,191	612	701	40,504
Totals	146,014	10,317	30,696	187,027
Industrial Arts				
Grades 7 and 8			57,192	
Secondary			57,734	
Total Industrial Arts				114,926
Consumer and Homemaking (Not Occupational) Grades 7 and 8				54,467
TOTAL STATEWIDE ENROLLMENTS				356,420

TABLE 12

Fiscal Year 1983

Chapter 74 Secondary Enrollments and Completers
By Detailed Program Area and Type of School District

Students, Completers, Number of Programs

	USOE Code and Title	Number of Programs RV	AR	LSD	1982-1983 Enrollments	1982-1983 Completers
010100	Agricultural Production	6	1		327	41
010101	Animal Science	2		1	55	44
010200	Agricultural Supplies and Services	1			34	17
010300	Agricultural Mechanics	1	1		61	21
010500	Ornamental Horticulture	11	2	2	557	140
010700	Forestry	2			120	37
019900	Other Agriculture	1		2	450	47
	SUBTOTAL AGRICULTURE	24	4	5	1,604	347
040200	Apparel and Accessories			1	60	1
040400	Finance and Credit			2	44	7
040700	Food Service	3		1	352	60
040800	General Merchandising	13	10	51	3,312	1,634
041100	Hotel and Lodging	1		1	44	4
	SUBTOTAL DISTRIBUTIVE EDUCATION	17	10	56	3,812	1,706
070101	Dental Assistant			1	13	3
070299	Medical Lab., Other			1	46	1
070303	Nursing Assistant (Aide)	7		7	816	185
070904	Medical Assistant	1		1	229	16
070906	Health Aide	13	1	3	827	236
079902	Dietary Aide	1			65	10
	SUBTOTAL HEALTH	22	1	13	1,996	451

RV=Regional Vocational Technical, County Agricultural, and Independent Vocational Districts
AR=Academic Regional Districts
LSD=Local School Districts (Single City or Town School Districts)

TABLE 12

Fiscal Year 1983

Chapter 74 Secondary Enrollments and Completers
By Detailed Program Area and Type of School District

Students, Completers, Number of Programs

	USOE Code and Title	Number of Programs RV	AR	LSD	1982-1983 Enrollments	1982-1983 Completers
090201	Care and Guidance of Children	7	2	7	729	180
090202	Clothing	6		2	412	53
090203	Food Management Production/ Services	3		1	407	68
090205	Institutional and Home Management	3			393	32
090299	Other Occupational Preparation Homemaking			1	37	5
	SUBTOTAL OCCUPATIONAL PREPARATION HOMEMAKING	19	2	11	1,978	338
160108	Electronic Technology	1			121	8
160109	Electro-Mechanical Technology	1			68	16
160117	Scientific Data Technology	2			443	27
160401	Programmer	17	1	7	1,209	470
169900	Other Technical Education	5		3	28	10
	SUBTOTAL TECHNICAL	26	1	10	1,869	531
170100	Air Conditioning	17		3	653	148
170200	Appliance Repair	5		2	257	63
170301	Body and Fender	23	1	13	1,748	373
170302	Auto Mechanics	28	7	24	3,726	862
170700	Commercial Art	16		4	944	220
170900	Commercial Photography			1	69	5
171001	Carpentry	27	7	19	3,288	802
171002	Electricity	17	2	8	1,698	324
171003	Heavy Equipment	2			67	19
171004	Masonry	9			385	70
171005	Painting and Decorating	18		5	776	160
171007	Plumbing and Pipefitting	20	1	3	1,002	265
171099	Construction and Maintenance Other	12		3	478	108
171100	Custodial	1			144	4

TABLE 12

Fiscal Year 1983

Chapter 74 Secondary Enrollments and Completers
By Detailed Program Area and Type of School District

Students, Completers, Number of Programs

	USOE Code and Title	Number of Programs RV	AR	LSD	1982-1983 Enrollments	1982-1983 Completers
171200	Diesel Mechanics	6			300	72
171300	Drafting	26	3	16	1,626	370
171400	Electrical	11		10	1,193	317
171500	Electronics	25	1	19	2,380	600
171503	Radio & Television	2		1	231	31
171900	Graphic Arts	20	2	18	2,030	498
171902	Printing Press Operator Graphics	3		2	374	43
172100	Instrument Maintenance	1			24	2
172200	Maritime Occupations	4			182	40
172302	Machine Shop	26	4	19	3,161	755
172305	Sheet Metal	12	3	8	1,246	191
172306	Welding and Cutting	10		4	756	127
172309	Metal Patternmaking			1	20	7
172399	Metalworking, Other	12		7	434	222
172602	Cosmetology	20		9	1,312	445
172700	Plastics	2			68	22
172900	Quantity Food	20	3	10	2,049	483
172902	Cook/Chef	3		2	371	61
173100	Small Engine	5		3	395	40
173200	Stationary Energy	1		1	70	18
173300	Textile Production and Fabrication	3		2	69	45
173500	Upholstering	4		2	215	31
173600	Woodworking/Cabinetmaking	8	1	10	590	220
179900	Other Trade and Industry	1		1	1,075	96
	SUBTOTAL TRADE AND INDUSTRY	420	35	230	35,406	8,159
	TOTAL	528	64	325	46,776	11,532

TABLE 13

Fiscal Year 1983

Chapter 74 Postsecondary Day Enrollments and Completers
By Detailed Program Area and Type of School District

Students, Completers, Number of Programs

	USOE Code and Title	Number of Programs RV	AR	LSD	1982-1983 Enrollments	1982-1983 Completers
010100	Agriculture Production	2			44	44
010500	Ornamental Horticulutre	1			68	27
010600	Agriculture Resources	1			101	25
019900	Other Agriculture	1			76	20
	SUBTOTAL AGRICULTURE	5			289	116
040200	Apparel & Accessories	1		1	32	17
040700	Food Services			1	50	21
040800	General Merchandising			1	15	
	SUBTOTAL DISTRIBUTIVE EDUCATION	1		3	97	38
070101	Dental Assistant	7		1	103	99
070103	Dental Lab Technician					
070203	Medical Lab Assistant	1			14	9
070299	Medical Lab other	1			26	5
070302	Practical Nursing	11		2	525	425
070303	Nursing Aide	2			60	60
070305	Surgical Technician	3			50	44
070600	Ophthalmic	1			20	9
070904	Medical Assistant	7			125	125
	SUBTOTAL HEALTH	33		3	923	776
090203	Food	1			6	4
	SUBTOTAL OCCUPATIONAL PREPARATION	1			6	4

TABLE 13

Fiscal Year 1983

Chapter 74 Postsecondary Day Enrollments and Completers
By Detailed Program Area and Type of School District

Students, Completers, Number of Programs

	USOE Code and Title	Number of Programs RV	AR	LSD	1982-1983 Enrollments	1982-1983 Completers
160103	Architectural Technology	2			46	25
160106	Civil Technology	1			36	14
160107	Electrical Technology	1			21	9
160108	Electronic Technology	3			109	60
160109	Electro-mechanic Technology	2			78	30
160114	Metallurgical Technology	1			42	39
160401	Programmer	4		1	292	142
	SUBTOTAL TECHNICAL	14		1	624	319
170100	Air Conditioning	1			42	21
170700	Commercial Art	2			44	31
171200	Diesel Mechanics	1			59	22
171300	Drafting	1			12	1
172306	Welding	1			27	15
172602	Cosmetology	2		1	167	120
172900	Quantity Food	2			15	10
	SUBTOTAL TRADE AND INDUSTRY	10		1	366	220
	POSTGRADUATES					
070906	Health Aide	N/A	N/A	N/A	1	
090202	Clothing	N/A	N/A	N/A	13	
160110	Environmental Control	N/A	N/A	N/A	2	
170200	Appliance Repair	N/A	N/A	N/A	2	1
170301	Body and Fender	N/A	N/A	N/A	21	11
170302	Auto Mechanics	N/A	N/A	N/A	28	10
171001	Carpentry	N/A	N/A	N/A	18	5
171002	Electricity	N/A	N/A	N/A	73	6
171005	Painting & Decorating	N/A	N/A	N/A	10	2
171007	Plumbing	N/A	N/A	N/A	6	2
171400	Electrical	N/A	N/A	N/A	6	1
171500	Electronics	N/A	N/A	N/A	22	15
171900	Graphic Arts	N/A	N/A	N/A	14	4
172302	Machine Shop	N/A	N/A	N/A	22	8

TABLE 13

Fiscal Year 1983

Chapter 74 Postsecondary Day Enrollments and Completers
By Detailed Program Area and Type of School District

Students, Completers, Number of Programs

	USOE Code and Title	Number of Programs RV	AR	LSD	1982-1983 Enrollments	1982-1983 Completers
172305	Sheet Metal	N/A	N/A	N/A	3	3
172399	Other Metal (Fab)	N/A	N/A	N/A	3	2
172700	Plastics	N/A	N/A	N/A	9	3
172900	Quantity Funds	N/A	N/A	N/A	127	39
173100	Small Engine	N/A	N/A	N/A	2	
173300	Textile Products	N/A	N/A	N/A	3	2
173600	Cabinetmaking	N/A	N/A	N/A	9	3
179900	Other Trade and Industry	N/A	N/A	N/A	3	
	SUBTOTAL POSTGRADUATES				397	114
	TOTAL	65	12		2,702	1,587

TABLE 14
Fiscal Year 1983

NON CHAPTER 74 SECONDARY ENROLLMENTS BY MAJOR PROGRAM AREA
(With Detailed Breakdown for Office Occupations and Consumer/Homemaking)

Occupational Preparation Programs

	USOE Code and Title	1982-1983 Detailed Program* Enrollment	1982-1983 Major Program** Enrollment
010000	Agriculture		193
040000	Distributive Education		965
070000	Health Occupations		291
090200	Occupational Home Economics		767
140100	Accounting and Computing	20,257	
140201	Computer and Console Operations	4,566	
140203	Programmers	3,694	
140299	Other Business Data Processing	2,836	
140300	Filing, Office Machines	4,248	
140400	Information, Communication Occupations	622	
140500	Materials Support	34	
140600	Personnel Training and Relations	677	
140700	Steno, Secretarial and Related Occupations	9,613	
140800	Supervisory and Administrative Management	1,728	
140900	Typing and Related Occupations	35,650	
149900	Other Office Occupations	8,208	
140000	TOTAL		92,133
160000	Technical Occupations		1,137
170000	Trade and Industrial		3,752
TOTAL OCCUPATIONAL PREPARATION			99,238

*Detailed = 2 digit OE Code
**Major = 6 digit OE Code

TABLE 14
Fiscal Year 1983

NON CHAPTER 74 SECONDARY ENROLLMENTS BY MAJOR PROGRAM AREA
(With Detailed Breakdown for Office Occupations and Consumer/Homemaking)

Occupational Preparation Programs

	USOE Code and Title	1982-1983 Detailed Program* Enrollment	1982-1983 Major Program** Enrollment
090101	Comprehensive Homemaking	6,556	
090101	Children and Guidance	4,155	
090103	Clothing and Textiles	5,063	
090104	Consumer Education	962	
090105	Family Health	463	
090106	Family Living and Parenthood	2,340	
090107	Food and Nutrition	13,647	
090108	Home Management	125	
090109	Housing and Home Furnishing	285	
090199	Other Homemaking	2,292	
090100	TOTAL		35,888
TOTAL ALL PROGRAMS:			135,126

*Detailed = 2 digit OE Code
**Major = 6 digit OE Code

TABLE 15
Fiscal Year 1983

OTHER POSTSECONDARY/ADULT PUBLIC SCHOOL ENROLLMENTS
BY MAJOR PROGRAM AREA

	USOE Code and Title	1982-1983 Enrollments
010000	Agriculture	1,198
040000	Distributive Education	-0-
070000	Health Occupations	299
090200	Occupational Consumer and Homemaking	1,238
090100	Consumer and Homemaking (Not Occupational)	1,351
140000	Office Occupations	1,945
160000	Technical Occupations	1,719
170000	Trade and Industrial	5,394
990000	Other (Not Classified Above)	2,119
	TOTAL	15,590

TABLE 16

Fiscal Year 1983

COMMUNITY COLLEGE DAY SCHOOL ENROLLMENTS
AND COMPLETERS BY DETAILED PROGRAM

USOE Code and Title	# of Programs		# of Students	
	Associate Degree	Certificate	1982-83 Enrollments	1982-83 Completers
010500 Ornamental Horticulture	2	-	86	28
SUBTOTAL AGRICULTURE	2	-	86	28
040200 Apparel & Accessories	1	-	36	9
040700 Food Services	3	-	167	4
040800 General Merchandise	5	-	244	66
041100 Hotel and Lodging	4	-	494	87
014700 Real Estate	1	-	4	-
041800 Recreation & Tourism	2	1	58	25
SUBTOTAL DISTRIBUTIVE	16	1	1003	191
070101 Dental Assisting	-	3	50	27
070102 Dental Hygiene	5	-	209	89
070103 Dental Laboratory Technology	2	-	36	9
070203 Medical Laboratory Assisting	5	-	178	43
070301 Nursing (Associate Degree)	15	1	1754	735
070399 Nursing, Other	1	-	29	9
070400 Rehabilitation	5	2	225	93
070501 Radiologic Technology	8	-	293	122
070800 Mental Health Technology	4	1	169	51

TABLE 16

Fiscal Year 1983

COMMUNITY COLLEGE DAY SCHOOL ENROLLMENTS
AND COMPLETERS BY DETAILED PROGRAM

OE Code and Title	# of Programs		# of Students	
	Associate Degree	Certificate	1982-83 Enrollments	1982-83 Completers
0903 Inhalation Therapy	4	-	156	55
0904 Medical Assistant	2	-	151	44
9900 Health Occupations Education, Other	9	1	280	75
TOTAL HEALTH	60	8	3530	1352
0201 Care & Guidance of Children	9	1	659	150
0203 Food Management, Production & Services	1	-	25	-
TOTAL OCCUPATIONAL-REPARATION	10	1	684	150
0100 Accounting & Computer Occupations	8	-	744	123
0203 Programmers	8	1	1620	324
0299 Business Data Processing Systems Occupations, Other	9	1	1330	254
0400 Information Communication Occ.	3	1	96	25
0700 Stenographic, Secretarial & Related Occ.	41	7	2894	674
0800 Supervisory and Administrative Management Occ.	20	1	3884	903

TABLE 16

Fiscal Year 1983

COMMUNITY COLLEGE DAY SCHOOL ENROLLMENTS
AND COMPLETERS BY DETAILED PROGRAM

CSOE Code and Title	# of Programs Associate Degree	# of Programs Certificate	# of Students 1982-83 Enrollments	# of Students 1982-83 Completers
140900 Typing & Related Occ.	-	4	80	15
SUBTOTAL OFFICE	45	8	10648	2318
160104 Automotive Technology	3	1	90	20
160106 Civil Technology	5	-	96	21
160107 Electrical Technology	2	-	47	5
160108 Electronic Technology	12	1	1129	272
160109 Electromechanical Technology	4	2	358	87
160110 Environmental Control Technology	4	-	180	62
160111 Industrial Technology	1	-	12	2
160113 Mechanical Technology	1	-	27	6
160602 Fire & Fire Safety Technology	4	-	44	47
160605 Police Science Technology	11	-	889	237
169900 Other Technical Education	31	3	1354	407
SUB TOTAL TECHNOLOGY	78	7	4226	1160
170700 Commercial Art Occupations	2	1	96	7
171300 Drafting	1	3	154	35
171900 Graphic Arts Occupations	3	1	267	60
172302 Machine Shop	1	-	42	11
172602 Cosmetology	-	1	25	21
SUB TOTAL TRADE AND INDUSTRY	7	6	584	134
GRAND TOTAL	218	31	20761	5339

TABLE 16

Fiscal Year 1983

COMMUNITY COLLEGE CONTINUING EDUCATION ENROLLMENT
BY MAJOR PROGRAM AREA

OE Code and Title	1982-83 Enrollments
0000 Agriculture	7
0000 Distributive Education	371
0000 Health Occupations	745
0000 Occupational Home Economics	203
0000 Office Occupations	5611
0000 Technical Occupations	2881
0000 Trade and Industry	117
TAL	9935

Employer Satisfaction Survey

An Employer Satisfaction Survey was conducted by the Board of Regents of Higher Education to ascertain how satisfied employers are with graduates of community college day career programs. The 5,200 students who completed day career programs during fiscal year 1982 were mailed student follow-up survey forms in the fall of 1982 to determine their employment status. Of the 1,400 students who returned surveys and were currently employed, 737 gave permission to contact their employers. All 737 employers were mailed surveys during March 1983; 572 surveys were returned.

The results of the employer satisfaction survey are summarized in Table for graduates now employed in a field related to their training and in Table for graduates now employed in a field not related to their training. The number of surveys mailed and returned and the percent of total graduates which the numbers represent are summarized on page , followed by samples of both survey forms (student followup and employee followup).

The third stream of the employer followup survey (Other Postsecondary) will be conducted during fiscal year 1985 and will reported as part of the fiscal year 1984 Accountability Report.

GENERAL STATISTICS FOR 1982 VEDS FOLLOW-UP
MAY 2, 1984

NUMBER	DESCRIPTION	PERCENT OF TOTAL
5267	Total of Day-Career-Program, Community College Graduates	100.0
1881	Surveys Returned	35.7
257	Non-Usable	4.9
1624	Usable	30.8
1404	Currently Employed	26.7
13	Self-Employed	0.2
7	Military	0.1
1387	Other	26.3
737	Graduates who gave permission to contact employer. All employers were mailed surveys.	14.0
129	Employed in a Field Not-Related to Training	2.4
608	Employed in a Field Related to Training	11.5
588	Employer Surveys Returned	11.2
16	Non-Usable	.3
80	Employed in a Field not Related to Training	1.5
492	Employed in a Field Related to Training	9.3

FOLLOW-UP OF GRADUATES AY 81-82

The following information was provided by the employee on his or her student survey form. *Please make the necessary corrections.*

Employee's Name, Job Title, Program Major, Community College Attended and Institutional ID.

Immediate Supervisor's (Your) Name, Job Title, and the Company's Name and Address.

EMPLOYER FOLLOW-UP COMPON

The Commonwealth of Massachus

This survey is authorized by Public Laws 20 USC
20 USC 2391. Questions 7, 8, and 9 are requi
Federal government. The other questions h
included by the Massachusetts Department of
and the Massachusetts Board of Regents of Higher
While you are not required to respond to this su
cooperation is needed to insure that the results o
are comprehensive, reliable, and timely. No
information will be forwarded to the State
government.

PLEASE CHECK APPROPRIATE BOX(ES) FOR EACH QUESTION

- Questions 1 and 2 concern the employee's present employment status.

1. If this employee is presently employed in your company but not in position stated by him or her, please give the reason. (Please check *one*)

   ☐ Promoted
   ☐ Transferred
   ☐ Demoted
   ☐ Other (Please Describe): _____

   _____

2. If this employee is no longer with your company, please give the reason and continue to fill in this survey the best you can. (Please check *one*)

   ☐ Resigned
   ☐ Laid Off
   ☐ Fired
   ☐ Other (Please Describe): _____

   _____

3. What is (was) your professional relationship with this individual?

   ☐ Employer
   ☐ Supervisor
   ☐ Co-Worker
   ☐ Other (Please Describe): _____

   _____

4. How long did you, or have you observ
   performance of this individual? (Please che

   ☐ less than 6 months
   ☐ 6-12 months
   ☐ 1 to 2 years
   ☐ more than 2 years
   ☐ do not know

5. How often did you, or have you had a chance
   this individual's job performance? (Please

   ☐ Nearly all the time
   ☐ Half the time
   ☐ Once in a while
   ☐ Very seldom or never

6. The effectiveness of a person's training can
   the basis of first-hand knowledge of the
   college program the employee complet
   observing his or her on-the-job performanc
   basis will you be answering questions 7
   (Please check *all* boxes that apply)

   ☐ On first-hand knowledge of the emplo
   munity college program.
   ☐ On direct observation of the employee's
   performance.
   ☐ Other (Please Describe): _____

   _____ _____

PLEASE CONTINUE ON OTHER SIDE

ase rate the vocational training received by this ividual in the following areas:

	Very Good	Good	Average	Poor	Very Poor
hnical Knowledge	☐	☐	☐	☐	☐
rk Attitude	☐	☐	☐	☐	☐
rk Quality	☐	☐	☐	☐	☐
hnical Skills	☐	☐	☐	☐	☐
blem Solving Skills	☐	☐	☐	☐	☐
hematical Skills	☐	☐	☐	☐	☐
l Skills	☐	☐	☐	☐	☐
ting Skills	☐	☐	☐	☐	☐
ial Skills	☐	☐	☐	☐	☐
rk Habits	☐	☐	☐	☐	☐

at is your overall rating of the vocational training eived by this individual as it relates to the require- nts of his or her job? (Please check *one*)

Very Good	Good	Average	Poor	Very Poor
☐	☐	☐	☐	☐

a result of this person's vocational training, how ıld you rate his or her preparation in relation to er employees in his or her working group who did receive such training? (Please check *one*)

ndividual is better prepared
oth are about the same
ndividual is less prepared
o basis for comparison

at in your opinion is the job-outlook in the field for luates of this particular 2 year community college gram?

sently		Five Years From Now
☐	Very Good	☐
☐	Good	☐
☐	Average	☐
☐	Poor	☐
☐	Very Poor	☐
☐	Do Not Know	☐

11. What was the primary source(s) for the initial hiring o this individual?
    - ☐ Employed by company prior to graduating from community college
    - ☐ Referred by Employment Agency
    - ☐ Referred by Community College faculty member
    - ☐ Referred by Community College job placement office
    - ☐ Referred by mutual acquaintance
    - ☐ Applicant applied on his own initiative
    - ☐ Do not know
    - ☐ Other (Please Describe): _____

12. Are you interested in the following areas of collaboration between community college training programs and companies employing graduates of these programs?
    - ☐ Creation of a cooperative education program
    - ☐ Expansion of present cooperative education program
    - ☐ Membership in program advisory board
    - ☐ Participation in demonstrations or guest lectures
    - ☐ Other (Please Describe): _____

- We recognize that answering surveys can sometimes be burdensome. It would therefore be quite helpful if you would answer the following questions and use the comment space provided below to express your feelings about *any* difficulties or problems you may have had completing this survey.

13. Did you have any problems filling in this survey?
    ☐ No ☐ Yes

14. Would you have any difficulties or concerns about filling in such a survey annually?
    ☐ No ☐ Yes

ENTS:

NK YOU FOR ASSISTING US IN OUR SURVEY: PLEASE RETURN THIS SURVEY FORM IN THE PREPAID ENVELOPE AS SOON AS POSSIBLE

FOLLOW-UP OF GRADUATES AY 81-82

The Commonwealth of Massachusetts

Please make corrections on the information above if necessary.

PLEASE CHECK APPROPRIATE BLOCK(S) WITHIN EACH CATEGORY BELOW

• SECTION A Everyone should answer this section

Please provide the information requested below. This information is required for federal reporting in conjunction with equal opportunity education and employment reporting.

1) What was your MAJOR at our college?

• _____

2) What is your SEX? ☐ Male ☐ Female

3) What is your ETHNIC GROUP?

☐ American Indian or Alaskan Native
☐ Asian or Pacific Islander
☐ Black, not of Hispanic Origin
☐ Hispanic
☐ White, not of Hispanic Origin
☐ Nonresident Alien

4) What is your BIRTH DATE? ☐☐ ☐☐ ☐☐
MO DAY YR

5) Special Needs Designation (check one or more of these categories as were applicable during academic year 1981-82)

☐ Handicapped
☐ Limited English Proficient
☐ Disadvantaged

6) Which of the following types of programs did you complete during Academic Year 1981-82? (check one only)

☐ Associate Degree (60+ credits)
☐ Certificate (30-59 credits)
☐ Certificate of Completion (less than 30 credits)
☐ Other

7) While attending our college were you primarily (check one only)

☐ A Day Student – Full-time
☐ A Day Student – Part-time
☐ An Evening Student

8) What is your overall rating of the academic training that you received at our college?

☐ Excellent
☐ Very Good
☐ Good
☐ Fair
☐ Poor

9) What is your current educational status? (check one only)

☐ I am currently attending school
☐ Not currently attending school

• SECTION B If you have enrolled in any technical school or college since your graduation from our college, please answer this section. OTHERWISE PLEASE GO TO SECTION C.

1) Please provide the information requested below on your current (or most recently attended) school or college.

• _____
Name of Technical School or College

• _____
City and State

• _____
Your current Course, Program or Major Field of Study

2) Did you have problems entering the technical school or college indicated above?

☐ Yes, what ☐ Transferring credit hrs.
☐ Transcript problems
☐ No ☐ Admission problems
☐ Other (describe) _____

3) How many credit hours earned at our college were not accepted at the school indicated above?

_____Please write in the number if applicable

4) *If you are currently enrolled in a course or program* at the school indicated above, please indicate your current status and classification.

STATUS
☐ Part-time student
☐ Full-time student

☐ Sophomore
☐ Junior
☐ Senior
☐ Graduate Student
☐ Other

5) How well did the courses you completed at our college prepare you for continuing your training or education?

☐ My preparation was excellent
☐ My preparation was satisfactory
☐ Good in some areas only
☐ Fair, but all areas could have been better
☐ My preparation was inadequate

CONTINUED ON OTHER SIDE

• SECTION C All students should answer this section

1) What is your current employment status? (check one only)

- ☐ Employed (includes all employment even if below your qualifications. Does not include full-time military service)
- ☐ Full-time military service
- ☐ Unemployed seeking employment
- ☐ Unemployed (not employed and not seeking employment)
- ☐ Not in labor force (not employed and not seeking employment because of choice, illness, full-time student status, retirement, pregnancy or other such reason)

2) If unemployed, how long have you been unemployed? (check one only)

- ☐ less than 6 months
- ☐ 6-12 months
- ☐ more than 1 year

• SECTION D If you are currently employed, or in full-time military service, please answer this section. OTHERWISE GO TO SECTION E.

1) How long have you worked for your current employer? (check one only)

- ☐ less than 6 months
- ☐ 6-12 months
- ☐ 1 to 2 years
- ☐ more than 2 years

2) Please provide the following information on your present job.

•_____

Name of Company or Firm (if self employed, please write self.)

•_____

City State Zip Code

•_____

Your Job Title

•_____

Your Job Duties

3) We periodically conduct surveys of employers. If we may contact your immediate supervisor so he or she can have the opportunity to participate in such a survey, please supply the following information

•_____

Supervisor's Last Name First M.I.

•_____

Supervisor's Job Title/Telephone #

•_____

Please provide address if different from your company's.

4) Is this job related to the course you have completed at our college?

- ☐ Yes, it is directly related
- ☐ It is somewhat related
- ☐ It is only remotely related
- ☐ No, its not related at all

5) If not related, remotely related, or somewhat related, please indicate the reason.

- ☐ Current job temporary: continuing job search
- ☐ Could not find employment in my field
- ☐ Found better paying job in another field
- ☐ Current job temporary: continuing education
- ☐ Preferred job in non-related field
- ☐ Was not trained for specialized employment
- ☐ Other: _____

6) What is your current *gross* salary. (Do not add in overtime.) Please note that your response will be reported only in combination with the salary information of all other graduates.

$ _____ per ☐ Hour ☐ Week ☐ Month ☐ Year

7) The salary in the preceding item is based on how many hours per week employment? _____ hours per week

• SECTION E All students should answer this section

1) Were you employed during your enrollment at our college? (check all that apply)

- ☐ Yes, on cooperative education
- ☐ Yes, on college work study
- ☐ Yes, other employment
- ☐ No

2) Were you employed PRIOR to enrolling in the courses you completed at our college?

☐ Yes ☐ No

3) Were you employed in *your occupational area* PRIOR to enrolling in the course(s) completed at our college?

☐ No ☐ Yes

4) How would you rate the training you received at our college in relation to its usefulness to you in performing your job?

- ☐ Excellent
- ☐ Very Good
- ☐ Good
- ☐ Fair
- ☐ Poor

5) How many jobs have you had since your 1982 graduation?

_____

PLEASE USE THE ENCLOSED FORM FOR COMMENTS

THANK YOU FOR ASSISTING US IN OUR SURVEY:
PLEASE RETURN THIS SURVEY AND THE COMMENT FORM IN THE PREPAID ENVELOPE AS SOON AS POSSIBLE

SECONDARY X REGIONALLY ACCREDITED STATE APPROVED OTHER POSTSECONDARY

VOCATIONAL EDUCATION DATA SYSTEM (VEDS)

STATE MASSACHUSETTS REPORTING PERIOD 1982

EMPLOYER FOLLOW-UP REPORT

PART A1 MEAN RATINGS BY INSTRUCTIONAL PROGRAM RELATED

INSTRUCTIONAL PROGRAM		NUMBER OF RESPONDENTS UNIVERSE	NUMBER OF RESPONDENTS SAMPLE	MEAN OF EMPLOYER RATINGS TECHNICAL KNOWLEDGE	WORK ATTITUDE	WORK QUALITY	OVERALL RATING	RELATIVE PREPARATION
04.0200	APPAREL AND ACCESSORIES	4	1	4.0	3.0	3.0	3.0	3.0
04.0203	FOOD SERVICES	2	2	3.0	4.0	4.0	3.5	4.0
04.0900	GENERAL MERCHANDISE	11	8	4.0	4.2	4.3	4.0	4.2
04.1100	HOTEL AND LODGING	8	5	4.4	4.8	4.6	4.6	5.0
04.1900	RECREATION AND TOURISM	1	1	5.0	5.0	5.0	5.0	5.0
07.0101	DENTAL ASSISTING	1	1	2.0	3.0	3.0	2.0	
07.0102	DENTAL HYGIENE (ASSOCIATE DEGREE)	15	12	4.3	4.0	4.3	4.2	4.6
07.0103	DENTAL LABORATORY TECHNOLOGY	1	1	5.0	5.0	5.0	5.0	5.0
07.0203	MEDICAL LABORATORY ASSISTING	8	8	3.8	4.3	4.1	4.1	4.2
07.0301	NURSING (ASSOCIATE DEGREE)	111	93	4.1	4.3	4.3	4.0	3.2
07.0399	OTHER NURSING	11	8	3.8	3.3	3.7	3.7	4.0
07.0500	REHABILITATION	12	10	4.0	4.1	4.2	4.1	4.7
07.0501	RADIOLOGIC TECHNOLOGY (X-RAY)	21	18	4.4	4.2	4.4	4.5	3.6
07.0900	MENTAL HEALTH TECHNOLOGY	4	3	3.3	5.0	4.6	4.3	5.0
07.0903	INHALATION THERAPY	12	11	4.0	3.8	4.0	3.9	4.7
07.0904	MEDICAL ASSISTANT	6	6	4.6	4.8	4.8	4.6	5.0
07.0900	OTHER HEALTH OCCUPATIONS EDUCATION	4	2	4.5	5.0	5.0	5.0	5.0
09.0201	CARE AND GUIDANCE OF CHILDREN	21	18	4.2	4.4	4.6	4.4	4.7
09.0203	FOOD MGT., PRODUCTION AND SERVICES	1	1	5.0	4.0	5.0	5.0	5.0
14.0100	ACCOUNTING AND COMPUTING OCCUPATION	16	13	3.9	4.4	4.2	4.0	4.1
14.0203	PROGRAMMERS	17	12	4.0	4.6	4.4	4.4	4.5
14.0299	OTHER BUSINESS DATA PROCESSING	7	7	3.7	4.5	4.2	4.2	4.0
14.0400	INFORMATION, COMMUNICATION OCCUPATI	5	4	5.0	4.7	5.0	4.7	5.0
14.0700	STENOGRAPHIC, SECRETARIAL AND RELAT	98	81	4.2	4.4	4.5	4.4	4.7
14.0800	SUPERVISORY AND ADMINISTRATIVE MANA	95	71	4.1	4.4	4.5	4.3	4.5
14.0900	OTHER OFFICE OCCUPATIONS	1	1	5.0	5.0	5.0	5.0	
15.0104	AUTOMOBILE TECHNOLOGY	4	3	4.3	4.3	4.0	3.6	4.3
15.0105	CIVIL TECHNOLOGY	2	2	4.5	4.0	4.5	4.0	5.0
15.0109	ELECTRONIC TECHNOLOGY	20	18	4.2	4.3	4.3	4.1	4.5
15.0110	ENVIRONMENTAL-CONTROL TECHNOLOGY	6	5	4.2	4.4	4.4	4.2	4.2
15.0111	INDUSTRIAL TECHNOLOGY	1	1	5.0	5.0	5.0	5.0	5.0
15.0402	FIRE AND FIRE SAFETY TECHNOLOGY	15	14	4.7	4.1	4.3	4.4	4.8
15.0405	POLICE SCIENCE TECHNOLOGY	27	22	4.3	4.5	4.5	4.4	4.6
15.0900	OTHER TECHNICAL EDUCATION	31	23	4.5	4.7	4.5	4.5	4.9
17.1300	DRAFTING OCCUPATIONS	2	1	4.0	5.0	5.0	4.0	5.0
17.1900	GRAPHIC ARTS OCCUPATIONS	4	3	4.0	4.4	4.3	4.0	5.0
17.2302	MACHINE SHOP	1	1	5.0	5.0	5.0	5.0	5.0
17.2602	COSMETOLOGY	2	1	4.0	4.0	3.0	2.0	3.0
TOTAL		608	492	4.2	4.4	4.4	4.2	4.3

PART A1 EMPLOYER FOLLOW-UP REPORT MEAN RATINGS BY INSTRUCTIONAL PROGRAM RELATED

INSTRUCTIONAL PROGRAM	NUMBER OF RESPONDENTS UNIVERSE	NUMBER OF RESPONDENTS SAMPLE	MEAN OF EMPLOYER RATINGS TECHNICAL KNOWLEDGE	WORK ATTITUDE	WORK QUALITY	OVERALL RATING	RELATIVE PREPARATION
PROGRAM SUBTOTALS							
04 DISTRIBUTIVE EDUCATION	26	17	4.0	4.3	4.3	4.1	4.4
07 HEALTH	205	173	4.1	4.2	4.3	4.1	3.7
09 OCCUPATIONAL CONSUMER & HOMEMAKING	22	19	4.3	4.4	4.6	4.4	4.7
14 OFFICE OCCUPATIONS	239	189	4.2	4.5	4.4	4.3	4.5
16 TECHNICAL EDUCATION	106	88	4.4	4.4	4.4	4.3	4.6
17 TRADE AND INDUSTRY	9	6	4.1	4.5	4.3	3.8	4.6
T O T A L	608	492	4.2	4.4	4.4	4.2	4.3

SECONDARY X REGIONALLY ACCREDITED STATE APPROVED OTHER POSTSECONDARY

VOCATIONAL EDUCATION DATA SYSTEM (VEDS)

STATE MASSACHUSETTS REPORTING PERIOD 1982

EMPLOYER FOLLOW-UP REPORT

PART B: MEAN RATINGS BY RACIAL/ETHNIC/SEX DESIGNATION NON-RELATED

RACIAL/ETHNIC/SEX DESIGNATION		NUMBER OF RESPONDENTS: UNIVERSE	NUMBER OF RESPONDENTS: SAMPLE	MEAN OF EMPLOYER RATINGS: TECHNICAL KNOWLEDGE	WORK ATTITUDE	WORK QUALITY	OVERALL RATING	RELATIVE PREPARATION
AMERICAN INDIAN/ALASKAN NATIVE	M	0	0					
AMERICAN INDIAN/ALASKAN NATIVE	F	1	1	3.0	4.0	5.0	4.0	
ASIAN OR PACIFIC ISLANDER	M	0	0					
ASIAN OR PACIFIC ISLANDER	F	0	0					
BLACK, NOT HISPANIC	M	1	1		3.0	3.0		
BLACK, NOT HISPANIC	F	1	1	3.0	3.0	3.0		5.0
HISPANIC	M	1	0					
HISPANIC	F	0	0					
WHITE, NOT HISPANIC	M	58	34	4.0	4.5	4.3	4.0	4.3
WHITE, NOT HISPANIC	F	67	43	4.1	4.2	4.2	4.0	4.3
NON-RESIDENT ALIEN	M	0	0					
NON-RESIDENT ALIEN	F	0	0					
TOTAL		129	80	4.0	4.3	4.2	4.0	4.3

EMPLOYER FOLLOW-UP REPORT

PART C: MEAN RATINGS BY SPECIAL NEED NON-RELATED

SPECIAL NEED	NUMBER OF RESPONDENTS: UNIVERSE	NUMBER OF RESPONDENTS: SAMPLE	MEAN OF EMPLOYER RATINGS: TECHNICAL KNOWLEDGE	WORK ATTITUDE	WORK QUALITY	OVERALL RATING	RELATIVE PREPARATION
HANDICAPPED	0	0					
LIMITED ENGLISH	5	3	3.5	3.0	3.3	3.0	5.0
DISADVANTAGED	1	0					
TOTAL	6	3	3.5	3.0	3.3	3.0	5.0

SECONDARY REGIONALLY ACCREDITED STATE APPROVED OTHER POSTSECONDARY

VOCATIONAL EDUCATION DATA SYSTEM (VEDS)

STATE MASSACHUSETTS REPORTING PERIOD 1982

EMPLOYER FOLLOW-UP REPORT

PART A: MEAN RATINGS BY INSTRUCTIONAL PROGRAM NON-RELATED

INSTRUCTIONAL PROGRAM		NUMBER OF RESPONDENTS UNIVERSE	NUMBER OF RESPONDENTS SAMPLE	MEAN OF EMPLOYER RATINGS TECHNICAL KNOWLEDGE	WORK ATTITUDE	WORK QUALITY	OVERALL RATING	RELATIVE PREPARATION
04.0800	GENERAL MERCHANDISE	2	1	3.0	2.0	3.0	3.0	
04.1100	HOTEL AND LODGING	1	1	3.0	3.0	3.0	3.0	3.0
04.1600	RECREATION AND TOURISM	1	0					
07.0102	DENTAL HYGIENE (ASSOCIATE DEGREE)	1	1	4.0	4.0	4.0	4.0	5.0
07.0203	MEDICAL LABORATORY ASSISTING	2	0					
07.0400	REHABILITATION	2	2	4.0	5.0	4.5	4.5	5.0
07.0800	MENTAL HEALTH TECHNOLOGY	1	1	5.0	5.0	4.0	4.0	
07.0903	INHALATION THERAPY	1	0					
07.9900	OTHER HEALTH OCCUPATIONS EDUCATION	1	0					
09.0201	CARE AND GUIDANCE OF CHILDREN	2	1	4.0	4.0	4.0	3.0	
14.0100	ACCOUNTING AND COMPUTING OCCUPATION	7	5	4.2	4.8	4.6	4.2	4.6
14.0203	PROGRAMMERS	18	12	4.1	4.4	4.2	4.1	4.7
14.0299	OTHER BUSINESS DATA PROCESSING	5	1	3.0	4.0	5.0	4.0	
14.0400	INFORMATION, COMMUNICATION OCCUPATI	1	1	5.0	4.0	4.0	3.0	
14.0700	STENOGRAPHIC, SECRETARIAL AND RELAT	6	4	3.5	4.2	4.2	3.6	4.3
14.0900	SUPERVISORY AND ADMINISTRATIVE MANA	29	20	4.1	4.2	4.3	4.0	3.8
15.0104	AUTOMOBILE TECHNOLOGY	1	0					
15.0108	ELECTRONIC TECHNOLOGY	7	4	3.3	4.0	3.7	3.3	4.3
15.0111	INDUSTRIAL TECHNOLOGY	1	1	4.0	5.0	5.0	4.0	
15.0113	MECHANICAL TECHNOLOGY	1	1				3.0	3.0
15.0602	FIRE AND FIRE SAFETY TECHNOLOGY	1	1		5.0	5.0	4.0	5.0
15.0605	POLICE SCIENCE TECHNOLOGY	21	11	4.0	4.3	4.2	4.2	4.3
15.9900	OTHER TECHNICAL EDUCATION	14	11	4.0	4.2	4.3	4.5	4.8
17.1300	DRAFTING OCCUPATIONS	1	1	4.0	4.0	4.0	4.0	5.0
17.1900	GRAPHIC ARTS OCCUPATIONS	2	0					
TOTAL		129	80	4.0	4.3	4.2	4.0	4.3
PROGRAM SUBTOTALS								
04	DISTRIBUTIVE EDUCATION	4	2	3.0	2.5	3.0	3.0	3.0
07	HEALTH	8	4	4.2	4.7	4.2	4.2	5.0
09	OCCUPATIONAL CONSUMER & HOMEMAKING	2	1	4.0	4.0	4.0	3.0	
14	OFFICE OCUPATIONS	66	43	4.0	4.3	4.3	4.0	4.2
15	TECHNICAL EDUCATION	46	29	4.0	4.1	4.2	4.1	4.5
17	TRADE AND INDUSTRY	3	1	4.0	4.0	4.0	4.0	5.0
TOTAL		129	80	4.0	4.3	4.2	4.0	4.3

SECONDARY X REGIONALLY ACCREDITED STATE APPROVED OTHER POSTSECONDARY

VOCATIONAL EDUCATION DATA SYSTEM (VEDS)

STATE MASSACHUSETTS REPORTING PERIOD 1982

EMPLOYER FOLLOW-UP REPORT

PART B1 MEAN RATINGS BY RACIAL/ETHNIC/SEX DESIGNATION RELATED

RACIAL/ETHNIC/SEX DESIGNATION		NUMBER OF RESPONDENTS UNIVERSE	NUMBER OF RESPONDENTS SAMPLE	MEAN OF EMPLOYER RATINGS TECHNICAL KNOWLEDGE	WORK ATTITUDE	WORK QUALITY	OVERALL RATING	RELATIVE PREPARATION
AMERICAN INDIAN/ALASKAN NATIVE	M	2	2	4.0	4.5	4.0	4.0	4.0
AMERICAN INDIAN/ALASKAN NATIVE	F	3	3	5.0	5.0	5.0	4.6	5.0
ASIAN OR PACIFIC ISLANDER	M	1	1	5.0	5.0	5.0	5.0	5.0
ASIAN OR PACIFIC ISLANDER	F	0	0					
BLACK, NOT HISPANIC	M	2	0					
BLACK, NOT HISPANIC	F	7	5	4.2	4.2	4.2	4.2	4.5
HISPANIC	M	2	2	4.5	5.0	5.0	4.5	5.0
HISPANIC	F	11	8	4.0	4.3	4.1	4.0	4.6
WHITE, NOT HISPANIC	M	152	118	4.3	4.4	4.4	4.2	4.6
WHITE, NOT HISPANIC	F	428	353	4.1	4.3	4.4	4.2	4.2
NON-RESIDENT ALIEN	M	0	0					
NON-RESIDENT ALIEN	F	0	0					
TOTAL		638	492	4.2	4.4	4.4	4.2	4.3

EMPLOYER FOLLOW-UP REPORT

PART C1 MEAN RATINGS BY SPECIAL NEED RELATED

SPECIAL NEED	NUMBER OF RESPONDENTS UNIVERSE	NUMBER OF RESPONDENTS SAMPLE	MEAN OF EMPLOYER RATINGS TECHNICAL KNOWLEDGE	WORK ATTITUDE	WORK QUALITY	OVERALL RATING	RELATIVE PREPARATION
HANDICAPPED	7	5	4.6	4.8	4.8	4.6	4.2
LIMITED ENGLISH	6	5	4.2	4.4	4.6	4.4	4.2
DISADVANTAGED	8	7	4.6	4.5	4.5	4.4	4.0
TOTAL	21	17	4.5	4.5	4.6	4.4	4.1

TABLE 17 - STUDENT FOLLOW-UP

USOE CODE	TITLE		TOTAL COMPLETERS	MILITARY	EMPLOYED RELATED	EMPLOYED NONRELATED	ADDITIONAL EDUCATION	UNEMPLOYED	NOT IN LABOR FORCE	STATUS UNKNOWN
	Agricultural	Sec	88	2	32	9	19	2	1	
010100	Production	Postsec	42		23	2	4	1	1	11
	Agricultural	Sec	19		2	4	2			11
010200	Supplies/Services	Postsec								
	Agricultural	Sec	9		2			1		6
010300	Mechanics	Postsec								
	Agricultural	Sec								
010400	Products	Postsec								
		Sec	121	2	36	13	14	4		52
010500	Horticulture	Postsec	63	2	24	4	6	3	1	23
	Agricultural	Sec	19	1	5		9	3	1	
010600	Resources	Postsec	14		6	3	4			1
		Sec	30	3	4		8	1		14
010700	Forestry	Postsec	10		7		1			2
		Sec	20	1	6	3	3	1	2	4
019900	Other Agricultural	Postsec	11		8		2			1
	Apparel and	Sec								
040200	Accessories	Postsec	19	1	8	1	1	2	1	5
	Finance and	Sec	2							2
040400	Credit	Postsec								26
040700	Food Services	Sec	60		22	4	8			19
		Postsec	58		26	2	4	4	3	508
	General	Sec	1773	63	626	151	326	59	40	32
040800	Merchandising	Postsec	47		10	1	2	1	1	3
	Hotel and	Sec	3							79
041100	Lodging	Postsec	94		10	2	3			
	Recreation and	Sec								34
041800	Tourism	Postsec	36				1	1		
		Sec	6		4		2			
042000	Other Retail	Postsec	8		6					2

TABLE 17- STUDENT FOLLOW-UP

SOE CODE	TITLE		TOTAL COMPLETERS	MILITARY	EMPLOYED RELATED	EMPLOYED NONRELATED	ADDITIONAL EDUCATION	UNEMPLOYED	NOT IN LABOR FORCE	STATUS UNKNOWN
	Other Distributive	Sec	10		8	2				
900	Education	Postsec								
	Dental	Sec	2		1	1		1		
101	Assisting	Postsec	106		56	4	3	2		41
	Dental	Sec								
102	Hygiene	Postsec	89		41	1				61
	Dental Lab	Sec								
103	Technician	Postsec	18		2					16
	Medical Lab	Sec								
203	Assistant	Postsec	68		19	1	8	1	1	38
	Other Medical	Sec	2							2
299	Lab Technician	Postsec	15		6					9
	Nursing	Sec								
301	(Associate Degree)	Postsec	663		164	1	2	1	7	488
		Sec								
302	Practical Nursing	Postsec	417	1	301	2	2	2	4	105
		Sec	147		44	14	18	7	1	63
303	Nursing Aide	Postsec	46		32	1	9	1	3	
	Operating Room	Sec								
305	Technician	Postsec	27		16	2	1		1	7
		Sec	8		1	1	1			
399	Other Nursing	Postsec	16	9		16				
		Sec								
400	Rehabilitation	Postsec	101	93	17			4	1	79
		Sec								
501	Radiologic Technician	Postsec	123		32					91
		Sec								
600	Ophthalmic	Postsec	13		12		1			
	Mental	Sec								
800	Health Technician	Postsec	78		5	2	3		1	67

TABLE 17 - STUDENT FOLLOW-UP

USOE CODE	TITLE		TOTAL COMPLETERS	MILITARY	EMPLOYED RELATED	EMPLOYED NONRELATED	ADDITIONAL EDUCATION	UNEMPLOYED	NOT IN LABOR FORCE	STATUS UNKNOWN
070903	Inhalation Therapy	Sec								
		Postsec	67	55		22				45
070904	Medical Assistant	Sec	36		7	2	2		2	23
		Postsec	161		79	8	2	7	6	59
070906	Community Health Aide	Sec	188	4	50	16	47	5	5	61
		Postsec	16		11		2	1		2
070907	Medical Emergency Technician	Sec								
		Postsec	9		1					8
079900	Other Health Education	Sec	13			2		1	1	9
		Postsec	78		5	3		1		69
090201	Care & Guidance of Children	Sec	178		27	31	35	10	7	68
		Postsec	156	150	21	3	7	1	2	122
090202	Clothing Management Production/services	Sec	55		10	5	1	3		36
		Postsec								
090203	Food Management Production & Services	Sec	96		19	3	19	5	2	48
		Postsec	11		2				9	
090204	Home Furn. Equipment & Services	Sec	5			1			1	3
		Postsec								
090205	Institution & Home Management	Sec	31	1	1		3	3		23
		Postsec								
090299	Other Occupational Prep. Homemaking	Sec	7			1		2		4
		Postsec								
140100	Accounting & Computing	Sec								
		Postsec	151		25	2	9	2	2	111
140201	Computer Console Operators	Sec								
		Postsec								
140203	Programmers	Sec								
		Postsec	222	2	35	11	17	5		152
140299	Other Business Data Processing	Sec								
		Postsec	202	1	16	6	8	2		169
140400	Information Communications	Sec								
		PostSec	26		5	1				20
140700	Steno, Secretarial & Related	Sec								
		Postsec	661		184	13	6	5	6	447

TABLE 17 - STUDENT FOLLOW-UP

SOE CODE	TITLE		TOTAL COMPLETERS	MILITARY	EMPLOYED RELATED	EMPLOYED NONRELATED	ADDITIONAL EDUCATION	UNEMPLOYED	NOT IN LABOR FORCE	STATUS UNKNOWN
800	Supervisory & Administrative Mgmt.	Sec								
		Postsec	836		166	52	62	10	5	541
900	Typing & Related	Sec								
		Postsec	9		1					8
900	Other Office Occupations	Sec								
		Postsec	23		1	1		1		20
101	Architectural Technology	Sec								
		Postsec	30		12		3	1		14
104	Automotive Technology	Sec								
		Postsec	25		5	1	3			16
105	Chemical Technology	Sec	6							6
		Postsec								
106	Civil Technology	Sec								
		Postsec	35		5	1	4			25
107	Electrical Technology	Sec								
		Postsec	24		11			2		11
108	Electronic Technology	Sec	8	2	2	1		2		1
		Postsec	322	2	75	16	14	4		211
109	Electro Mechanical Technology	Sec	18							18
		Postsec	32		21	1		1		9
110	Environmental Control Technology	Sec								
		Postsec	33		9	1				23
111	Industrial Technology	Sec								
		Postsec	17		1	2				14
113	Mechanical Technology	Sec								
		Postsec	6				1			5
114	Post Secondary Metallurgy	Sec								
		Postsec	29	1	23		3			2
117	Scientific Data Processing	Sec	24		5	2	8	1		8
		Postsec								

TABLE 17 - STUDENT FOLLOW-UP

USOE CODE	TITLE		TOTAL COMPLETERS	MILITARY	EMPLOYED RELATED	EMPLOYED NONRELATED	ADDITIONAL EDUCATION	UNEMPLOYED	NOT IN LABOR FORCE	STATUS UNKNOWN
		Sec	299	7	60	24	79	7	1	121
160401	Programmer	Postsec	116	1	56	6	5	2		46
	Fire & Fire	Sec								
160602	Safety Technology	Postsec	82		28	2	1			51
	Police Science	Sec								
160605	Technology	Postsec	333	1	40	20	24		1	247
	Other Technical	Sec	5		1					4
169900	Education	Postsec	407		62	14	29	10	3	286
	Air	Sec	154	5	36	18	16	1		78
170100	Conditioning	Postsec	22		7					14
	Appliance	Sec	60	3	25	9		5		18
170200	Repair	Postsec	6			4	1			1
		Sec	380	10	108	29	7	14	3	209
170301	Auto Body	Postsec	3							3
		Sec	915	46	307	108	59	34		361
170302	Auto Mechanics	Postsec	7	1	2	1	1			2
		Sec	236	4	32	45	44	8	2	101
170700	Commercial Art	Postsec	48		5	5	4			34
	Commercial	Sec	10	1						9
170900	Photography	Postsec								
		Sec	740	40	231	74	38	16	1	340
171001	Carpentry	Postsec	4		3					1
		Sec	321	14	104	33	22	12	5	131
171002	Electricity	Postsec								
	Painting &	Sec	138	1	25	15	7	11	1	78
171005	Decorating	Postsec	10		4	3	2	1		
		Sec	65	5	15	8	2	5		36
171004	Masonry	Postsec								
	Heavy	Sec	35	1	7	2		2		23
171003	Equipment	Postsec								

TABLE 17 - STUDENT FOLLOW-UP

CODE	TITLE		TOTAL COMPLETERS	MILITARY	EMPLOYED RELATED	EMPLOYED NONRELATED	ADDITIONAL EDUCATION	UNEMPLOYED	NOT IN LABOR FORCE	STATUS UNKNOWN
07	Plumbing & Pipefitting	Sec	264	3	55	32	6	11	2	145
		Postsec	9	1	4	4				
09	Other Construction & Maintenance	Sec	121	5	21	14	2	4		75
		Postsec								
00	Custodial Services	Sec	1							1
		Postsec								
00	Diesel Mechanics	Sec	74	2	24	9	2	2		35
		Postsec	16		2	2	1	2		9
00	Drafting	Sec	345	18	69	33	49	11	1	164
		Postsec	16		2	2	1	2		9
00	Electrical Occupations	Sec	308	12	85	25	29	8	2	147
		Postsec								
00	Electronics	Sec	603	39	150	59	83	12	4	256
		Postsec	18	1	4	1	3			9
00	Graphic Arts	Sec	484	23	155	51	34	23	8	190
		Postsec	54		9	7	5	1		32
00	Instrument Maintenance & Repair	Sec	3				1			2
		Postsec								
00	Maritime Occupations	Sec	33	4	7			1		21
		Postsec								
02	Machine Shop	Sec	777	45	224	90	31	34	7	346
		Postsec	24	1	5	2		3		13
05	Sheet Metal	Sec	188	12	60	20	6	6	1	83
		Postsec	1		1					
06	Welding	Sec	161	12	24	13	2	6	2	102
		Postsec	17	1	4	7	1	1		3
09	Other Metal Occupations	Sec	159	13	63	14	7	8	1	53
		Postsec	2							2
00	Metallurgy	Sec	6					1		5
		Postsec								

TABLE 17 - STUDENT FOLLOW-UP

USOE CODE	TITLE		TOTAL COMPLETERS	MILITARY	EMPLOYED RELATED	EMPLOYED NONRELATED	ADDITIONAL EDUCATION	UNEMPLOYED	NOT IN LABOR FORCE	STATUS UNKNOWN
	Cosmetology	Sec	465		125	58	19	16	12	235
17602	Other Services	Postsec	163		69	13	2	4	5	70
		Sec	17	1	1	6	3			6
172700	Plastics	Postsec	2							2
	Quantity	Sec	494	25	150	44	46	17	6	206
172900	Food	Postsec	56		40	3	3		2	8
		Sec								
173000	Refrigeration	Postsec								
		Sec	46		7	1	1	1		36
173100	Small Engine	Postsec	1		1					
	Stationary	Sec	21	1	4	4		2		10
173200	Energy Sources	Postsec								
	Textile	Sec	42		3	6	3	4		26
173300	Production	Postsec	2		2					
		Sec	40		10	1	4	1		24
173500	Upholstering	Postsec								
		Sec	227	17	58	43	14	12	1	82
173600	Woodworking	Postsec	3		1			2		
	Other Trade	Sec	16		4	1	1			10
179900	& Industry	Postsec								

Educational Equity

GOAL 2: TO INCREASE OPPORTUNITIES IN VOCATIONAL PROGRAMS WHICH ARE OF HIGH QUALITY AND REALISTIC IN TERMS OF EMPLOYMENT DEMAND WHICH MEET THE NEEDS, INTERESTS AND ABILITIES OF ALL CITIZENS, HAVE EQUAL ACCESS FOR ALL AND WILL INSURE THAT ALL STUDENTS (PARTICULARLY MINORITIES, FEMALES, LIMITED ENGLISH PROFICIENT, HANDICAPPED, DISADVANTAGED) ARE AFFORDED EQUAL ACCESS TO VOCATIONAL EDUCATION PROGRAMS.

The Massachusetts Department of Education's effort to provide equal access for females and males to vocational education predates Public Law 94-482. The Commonwealth's equal educational opportunity law, Chapter 622, was passed in 1971 and its regulations, which specifically address vocational education, became effective in 1975. Massachusetts' commitment to sex equity in vocational education law was further strengthened by the adoption in 1977 of revised regulations for Chapter 74, the state vocational education law. The law makes state aid to vocational programs contingent on the submission of written "admissions criteria" that do not discriminate against priority populations. Consequently, the outline of the Commonwealth's sex-equity effort was established prior to the promulgation of the sex-equity amendments to P.L. 94-482. The Commonwealth's sex-equity plan is considerably stronger than ones which rely on incentives and model programs.

The Division of Occupational Education's comprehensive plan to ensure equal vocational education opportunities for both sexes in Massachusetts has five general components.

A. Division Personnel

The Division has assigned specific responsibilities for sex-equity to certain staff members, and in addition provides training on an on-going basis for all its program staff in critical aspects of equity requirements.

1. Educational Equity Unit of the Division: The coordinator of the Unit is responsible for all equity concerns in vocational education. The Sex-Equity Coordinator is a member of the unit, and has specific responsibility for the sex-equity requirements of state and federal legislation.

2. Displaced Homemakers Coordinator: The Coordinator is responsible for all funded programs in the Commonwealth to assist displaced homemakers.

3. The Program Staff of the Division: The staff has received training, in previous years, in such areas as: developing strategies to reduce sex bias in vocational education; selecting curricular materials free of sex stereotyping; designing counseling and placement services to assist students to enter and remain in nontraditional areas of study; and development of model programs.

B. Regular Divisional Procedures

The Division has instituted certain regular procedures designed to ensure that vocational education programs for which the Division has funding and oversight responsibilities comply fully with state and federal sex-equity legislation.

1. Recipients of federal vocational education funds: All applications and competitive proposals for federal vocational education funds must contain the following before they are considered for processing: projected enrollments for all protected categories of students; a description of recruitment procedures for all protected categories of students; an objective designed to reduce sex bias and stereotyping; an evaluation procedure in measurable terms for that objective; assurance that curricular materials used in the proposed project will be reviewed for sex and ethnic bias; assurance that supportive services will be provided for students enrolled in nontraditional programs; and documentation that affirmative action hiring practices will be observed. Each funded project is required to file a Quarterly Progress Report that contains actual enrollment figures for protected categories of students. Further federal funds may be withheld from any project whose actual enrollment figures deviate significantly from projected enrollments. The final report filed for each project reports the gender of all staff hired with federal funds.

2. Selective secondary vocational schools: These schools are the primary deliverers of intensive skills training at the secondary level. The Division undertook an intensive effort to ensure equal access to the Commonwealth's forty-five selective schools commencing in 1976. In that year, each selective school was required to develop and submit an Admissions Plan to the Department of Education that contained (1) current enrollments by category, (2) a description of admissions policies and procedures, and (3) a recruiting plan to increase enrollments of underrepresented categories. Since 1977, each selective school has been required to file an Admissions Plan Update that reports current data, procedures, and recruiting efforts. Federal funds are withheld until the plan is approved. In October 1982, the Division intensified its efforts by focusing on technical assistance to resolve priority concerns in order that admissions policies of selective schools meet divisional standards of approval.

3. Chapter 74 programs (state-aided vocational education programs): The regulations for vocational education programs aided and regulated by the Commonwealth of Massachusetts include "conditions of admission" among the ten factors evaluated by the Division of Occupational Education before programs are approved. All Chapter 74 programs are prohibited by the regulations from using any admission criteria that discriminate on the basis of sex, race, religion, color, national origin or special needs. The Division's regular evaluation of these programs includes an investigation and evaluation of the conditions of admission.

4. Civil Rights Compliance Review: The Department of Education, in accordance with the Massachusetts Methods of Administration in response to the Office for Civil Rights Guidelines for Vocational Education Programs, has instituted an annual procedure for the compilation and distribution to concerned parties of a computer-generated Civil Rights Compliance Review. The Compliance Review is a comprehensive analysis of enrollment data for all secondary vocational education programs in the Commonwealth. Regional staff review sets of computer-generated data consisting of a series of analyses of access to occupational programs for female, minority, handicapped, and limited English proficient students. Data was based on information in the October 1, 1982 School System Summary Report.

   Of the 256 school districts with secondary programs in the Commonwealth, at least 46 districts received on-site reviews for civil rights compliance issues beginning in September 1982. This represents 18% of the operating school districts in this state, far more than the 5% required by the Methods of Administration for Massachusetts.

   Since the monitoring of the selective secondary vocational schools began in 1977, the enrollment of females has increased by 22% while the total enrollment increase has only been 10%. Table 1 presents enrollment increases in selective secondary vocational schools during fiscal years 1979-83.

Table 18

Female Enrollment Changes In Selective Secondary Vocational Schools (SSVS) for Fiscal Years 1979-1983

	FISCAL YEARS				
SSVS Enrollment	1979	1980	1981	1982	1983
TOTAL	35,888	36,479	37,623	37,532	39,026
Female	9,436	9,895	10,577	11,020	11,884
Female - % of Total	26%	27%	28%	29%	30.5%

C. Technical Services to Vocational Schools

In April, 1982 the Division of Occupational Education of the Massachusetts Department of Education awarded a contract to A.L. Nellum and Associates to design and pilot test a Comprehensive Recruitment Package. The goal of this project was to assist vocational school personnel in their efforts to recruit priority population students: minorities, limited English proficient, handicapped, and boys and girls into nontraditional programs. This Recruitment Package included a "Recruiter's Guide" for school personnel and a Student-Parent Fact Pack with brochures on five different occupations for vocational training and reasons for parents to consider vocational education for their children. (The brochures were translated into both Spanish and Portuguese). There were also four posters depicting priority population students in vocational settings, one of which was in Spanish.

Considerable input on the design and direction of this project was provided by the project Advisory Group. This nine member group was comprised of vocational school personnel and representatives from industry and priority populations. The Advisory Group identified the problems of current recruitment practices and suggested alternatives for this project. They also provided input on the design and format of the Recruiter's Guide and the brochures for the Student-Parent Fact Pack.

The brochures and recruiter's guide were pilot tested by the career guidance staff and counselors in two schools, one in an urban and the other in a rural area. The participants in the pilot test completed a pre-assessment questionaire about their current recruitment practices, reviewed the materials and made suggestions for revision. Finally, using a post-assessment questionnaire, project staff interviewed participants to determine how they might alter their recruitment strategies with the assistance of these materials.

The final draft incorporated the changes suggested by the pilot test participants as well as other groups which informally reviewed the materials, e.g., Regional Office Team Leaders, State Advisory Council on Vocational-Technical Education, League of Women Voters. The final camera-ready copy was submitted to the Division of Occupational Education for approval and sent out for printing.

D. Sex Equity Projects

Two sex equity projects that were funded during fiscal year 1983 are highlighted. One was aimed at junior high school students and the other involved students in a 9th grade exploratory program.

Exploring Computers, Melrose Public Schools

Twenty-five females and twenty-five males were given hands-on experience in both word processing and data processing in a nontraditional summer program for junior high school students. A coordinator was hired along with three word/data processing teachers for the six-week "Computer Camp".

Student enrollment in the program included 18 disadvantaged, 3 handicapped and 14 minority youngsters. After learning word processing techniques on a Wang System, the students concentrated on Digital Video Terminals (VT-101). Emphasis was placed on nontraditional roles which included student-run programs in nontraditional areas, guest speakers, and field trips highlighting men and women in nontraditional computer processing positions.

Project Explore, Minuteman Regional Vocational Technical School

This summer program involved the department heads of each of the vocational clusters at Minuteman in analyzing and solving the problems of nontraditional placements in their freshman orientation strategies. A series of hands-on activities were published in a booklet made available to vocational schools throughout the state. Twelve staff members, including a coordinator, seven department heads, three instructors and a guidance counselor, were hired for a two-week period.

All 270 ninth-graders (81 females and 189 males) benefited from the program. Materials developed, including hands-on curricula and videotapes of nontraditional role model interviews, were used in first year orientation and exploratory shops.

E. Results of Services to Other Priority Populations

In addition to funding sex equity projects, federal funds were targeted toward three other priority groups: handicapped, disadvantaged, and limited English proficient students.

Federal funds and program development efforts were directed at increasing the enrollments of students previously underrepresented in occupational education. High school enrollments in occupational education are listed for the following priority populations: handicapped, disadvantaged, and limited English proficient students.

Significant progress was made in the improvement of the admission plans process for the 45 selective vocational schools. As a result of streamlining the process, a significant burden was eliminated from the school districts. During fiscal year 1983, major emphasis was directed toward the approval of the admissions policy. Specific technical assistance was provided to each of the selective schools in ensuring the provision of services for all priority populations.

The federal vocational education regulations of the Office for Civil Rights and the Department's "Methods of Administration" continued to be implemented through the use of monitoring instruments specially designed for the process.

The following vocational programs represent the services provided to special populations throughout the Commonwealth. Although most programs involved more than one priority group, programs are listed under the major priority group served. Brief descriptions of each priority group (taken from the State Plan) are included to identify the population groups.

HANDICAPPED

Handicapped students are students who fulfill both of the following two conditions:

1. Have one or more of the following impairments: speech, orthopedic, physical, hearing, visual; are mentally retarded; are seriously emotionally disturbed; or who have specific learning disabilities; and who by reason of this impairment(s):

   a. require special education and related services; and

   b. cannot succeed in the regular vocational education program without special educational assistance; or

   c. require a modified vocational education program.

2. Have either an Individualized Education Plan (IEP) or an Individualized Written Rehabilitation Plan (IWRP).

Maintenance Support Program, Smith Vocational Agricultural High School

Jointly funded between the Divisions of Occupational Education and Special Education, the maintenance support program offered vocational skills training in agriculture, carpentry, automotive, health and welding, related vocational instruction, remedial math and English, and counseling. Prior to entering the program, the special needs students were unable to function, in the mainstream classes. With additional instructional and counseling support, however, students were assisted in moving into regular classes, and the school could serve a larger number of special needs students. Twenty-seven students were served.

Project accomplishments included the following:

a. All five seniors in the program graduated; three of the five were placed in jobs immediately after graduation.

b. Of fifteen sophomores and juniors, ten were placed in summer jobs.

c. Four students were partially mainstreamed; one was recommended for full time placement in auto body for the following year.

d. One student, a junior, was a student council member.

Vocational Skills Support for the Handicapped, Chicopee Public Schools

Thirty-eight handicapped students in grades 10-12 received individualized remediation in their area of skills training and related theory. A full time special needs instructor provided remediation in math and English, assisted students in shops, and gave informal counseling.

As a result of this program several students raised their grade one grade level, there were fewer dropouts, and shop teachers noticed improved performance in the trade areas. The primary objective, that 85% of the participants would successfully complete their year's program of studies, was met.

Basic Business Skills, Beverly Public Schools

Basic Business Skills gave special assistance to 35 handicapped students with Individual Educational Plans. Because these students were unable to compete with others on an academic and motor coordination level, individualized assistance was considered necessary. The purchase of word processing equipment expanded the business education program and provided students with marketable skills.

An aide, trained as a teacher, tutored the handicapped students. As a result of the individualized assistance, more than half of the students were mainstreamed into regular business classes.

On-Site Job Training, Lowell Public Schools

The Job Preparation Program provided functional academic and vocational training to 22 multiply handicapped and/or retarded students. Students were trained in clerical, filing, sorting, assembly, institution and home maintenance management skills, and placed in jobs at Wang and other businesses within the community. In an effort to minimize sex and ethnic stereotyping, a teacher provided skills instruction and on-site job counseling. Students were introduced to a variety of jobs. Students working at Wang had the additional benefit of the services of a company counselor and the security of long-term employment. Once hired, Wang agreed to employ students permanently. By the end of the 1982-83 school year, Wang had employed several handicapped students.

Office Occupations Skill Training, Chelmsford Public Schools

Students from the business and special education departments received computer-assisted instruction on microcomputers. Students acquired computer literacy skills which included knowledge of hardware and software, keyboarding techniques, and consumer and business applications. The standard curriculum was tailored to meet the special needs of the 80 handicapped and disadvantaged students who were referred to the program. Teaching was individualized, and students received remediation in English and math. In an informal survey administered in June, seven out of twelve non-college bound seniors had found employment.

Project MOVE, Marshfield Public Schools

Eleven handicapped students in grades 9, 10, and 11 were given occupational training in an alternative school setting. Emotional difficulties prevented students from attending a regular high school program. An aide provided vocational skills training, monitored students at work, and supported students in their academic studies.

The program gave students an option to the regular high school program while retaining them in an academic environment. Eight of the eleven students were placed in jobs.

Handicapped Support, Springfield Public Schools

This project provided instruction and job placement services for 76 handicapped students in a substantially separate and ungraded setting. A vocational instructor taught carpentry skills and coordinated the academic instruction with the regular 9th grade curriculum at Putnam High. At the end of the year students were evaluated and a number of students were recommended for a regular 9th grade.

A job development counselor placed high school students in jobs at insurance companies, nursing homes, hospitals, health services, food building maintenance, and office practices. Many students were offered a permanent position after graduation.

DISADVANTAGED

Disadvantaged students are persons who have academic or economic disadvantages, or require special services, assistance, or programs to enable them to succeed in vocational education programs. Projects designed to assist disadvantaged students follow:

Stay at Montachusett, Montachusett Regional Vocational Technical School

A resource aide was hired to maintain attendance records and establish regular contact with potential drop-outs and their families to establish a drop-out prevention system which would be infused into the program operation. An aide compiled factual data relating to absenteeism. As a result of the project, attendance improved during the 1982-83 school year. In addition, a systematic record keeping system was developed.

Food Service/Restaurant Management, Lowell Public Schools

The Food Service/Restaurant Management project trained 32 special education and potential drop-out junior and senior students in food preparation and restaurant management. A goal of the program was to assist disadvantaged students to complete tehir education with a saleable skill leading to employment. A second goal was to mainstream disadvantaged students.In addition to remedial functional academics, students received vocational training in a variety of skill areas such as clerical, housekeeping, food services, and daily living skills. During the school day students particpated in cooperative work experiences in various sectors of the community including Wang Laboratories, Goodwill Industries, and Merrimac Magnetics.

During fiscal year 1983, 98% of the students successfully completed the program. Work-site staff gave positive feedback about the students' skills and abilities.

Related Math Tutorial Program, Smith Vocational Agricultural High

This project provided 46 disadvantaged high school students with remedial math instruction designed to assist them in their vocational classes. Working on an individual and small group basis, a math resource instructor assessed students in 16 trade areas.

Of the 46 students receiving tutorial help, eleven were terminated with passing grades and one transferred to the high school. The remaining thirty-five received sufficient math support to be able to succeed in their trade area. Following graduation four of the five seniors were placed in employment.

Alternative High School and Hampden County Skills Center, Springfield Public Schools

Developed between the Springfield Public Schools and a skills center, vocational skill training and related theory were provided to fifteen former school drop-outs. Students received academic instruction in the

morning and occupational training in one of five areas: electronics, bench assembly/service, business skills, graphic arts, and drafting in the afternoon. In addition, counseling and placement services were provided.

Ten students successfully completed the program. Of these, five chose to participate in additional training.

Keyboarding/Word Processing, Lee Public Schools

A combination of local and federal funds were utilized to establish the first phase of a microcomputer lab in which keyboarding and word processing skills were taught to business education students. A vocational support instructor provided supportive services to eight handicapped and twelve disadvantaged students.

Through this project, a computer related business curriculum and a computer literacy course were developed. Business department staff received training in the effective use of microcomputers for business. Four males enrolled in business education and four (out of six) seniors were placed in word processing jobs. According to staff, priority populations experienced success beyond expectations, and demand for the program exceeded existing space.

Word Processing, Somerville Public Schools

Disadvantaged students were taught the following word processing skills: machine operation, formal search and delete, composition, basic programming, keyboarding, and flow charting. In addition, students were assisted with such job searching skills as resume writing, interviewing, and finding employment.

The program provided entry level word processing training to 15 potential drop-out students. Two males completed the program.

Microcomputers, Marlboro High School

Seventy-nine handicapped and special education students received individualized instruction in computer literacy and computer business uses. Instruction was provided on a daily basis with the day divided between skills training and academic course work. An additional 57 students in the business education program also used the equipment.

This project served a group of eleventh and twelfth grade students who were designated as having learning difficulties, poor attendance, and behavior problems. These students received skills training on microcomputers along with special support services. Thirty-five program completers graduated from Marlboro High School with job entry skills in microcomputers and their business applications. Many of the juniors developed a serious interest in the field. The program continues to operate at Marlboro High School.

LIMITED ENGLISH SPEAKING

Limited English proficient students are individuals who come from environments where a language other than English is dominant and by reason thereof, have difficulties speaking and understanding instruction in the English language and require special services, assistance, or programs in order to succeed in regular vocational education programs. Projects developed for limited English proficient students follow:.

Vocational English as a Second Language Program, Boston Public Schools

English as a second language was offered to 116 limited English proficient students enrolled in various skills training programs. An E.S.L. instructor and bilingual aide provided individualized and small group instruction in the development of language and vocabulary skills related to the student's trade area.

As a result of this program, the number of limted English proficient students enrolled in skills training programs increased, and students were assisted in completing their vocational programs.

Supportive Services for LEP Students, Greater New Bedford Regional Vocational School

Students were given bilingual instruction until they had sufficient ability to be mainstreamed into regular vocational classes. Support services were given to 35 entering limited English proficient (LEP) students and 25 upper class LEP students. Most second year students in the program received less than 25% assistance in bilingual classes. Recruitment efforts were successful in bringing limited English proficient students into the school. The program received local community agency support.

Bilingual Support, Springfield Public Schools

The project provided support services within the shop programs for 26 limited English proficient students in grades 9 through 12. In coordination with shop instructors, the bilingual vocational education instructor provided supplementary individualized instruction, shop practice, blueprint reading, trade concepts, and related math and science.

In addition to assisting students, the bilingual instructor translated and developed individualized shop materials in Spanish. As a result of this supportive service, the number of bilingual students has increased and bilingual students have been assisted in completing these programs. Students also benefitted from having a bilingual role model.

Table 19

Fiscal Year 1983

Priority Populations Served in Chapter 74 Secondary Programs
(by Major Program Area)

USOE Code and Title	Male Enrollment				Female Enrollment				First Language Not English *	Limited English Proficient *
	Total	Minority	Disadvantaged	Handicapped	Total	Minority	Disadvantaged	Handicapped		
010000 Agriculture	1,037	41	142	201	567	52	81	40	23	-
040000 Distributive Education	1,420	287	385	250	2,393	345	553	239	131	56
070000 Health	133	16	22	28	1,884	236	283	166	125	188
090200 Consumer and Homemaking	283	20	54	88	1,752	267	345	249	140	31
160000 Technical	862	38	91	82	979	21	114	47	66	34
170000 Trade and Industrial	28,473	2,443	5,476	4,754	6,993	929	1,310	690	1,416	391
TOTALS	32,208	2,845	6,170	5,403	14,568	1,850	2,686	1,441	1,901	700

* includes male and female enrollment

TABLE 20

FISCAL YEAR 1983 ESTIMATED ENROLLMENTS

PROGRAM CATEGORY 121: VOCATIONAL SKILLS TRAINING

ENROLLMENTS BY GRADE

	ELEMEN-TARY	MIDDLE SCHOOL	JUNIOR HIGH	GRADE 9	GRADE 10	GRADE 11	GRADE 12	POSTSEC-ONDARY	ADULT
FEMALE				1160	2752	3718	4262	1550	142
MALE				1545	3280	3733	3496	990	298

ENROLLMENTS BY ETHNICITY

	WHITE NON HISPANIC	WHITE HISPANIC	NON-WHITE HISPANIC	BLACK-NON HISPANIC	AMERICAN INDIAN	ASIAN	OTHER
FEMALE	11136	580	381	1186	38	209	62
MALE	10894	532	548	1107	44	148	69

ENROLLMENTS BY NEED

	HANDI-CAPPED	DISAD-VANTAGED	LIMITED ENGLISH	REGULAR	OTHER
FEMALE	2005	5115	386	6040	46
MALE	2931	5489	503	4395	24

TOTAL FEMALE	13592
TOTAL MALE	13342
TOTAL	26934

PROGRAM CATEGORY 122: COOPERATIVE EDUCATION

ENROLLMENTS BY GRADE

	ELEMEN-TARY	MIDDLE SCHOOL	JUNIOR HIGH	GRADE 9	GRADE 10	GRADE 11	GRADE 12	POSTSEC-ONDARY	ADULT
FEMALE						290	318		
MALE						388	484		

ENROLLMENTS BY ETHNICITY

	WHITE NON HISPANIC	WHITE HISPANIC	NON-WHITE HISPANIC	BLACK-NON HISPANIC	AMERICAN INDIAN	ASIAN	OTHER
FEMALE	514	50	9	32		3	
MALE	715	58	18	67	7	5	2

ENROLLMENTS BY NEED

	HANDI-CAPPED	DISAD-VANTAGED	LIMITED ENGLISH	REGULAR	OTHER
FEMALE	95	333	26	154	
MALE	183	427	27	235	

TABLE 20

FISCAL YEAR 1983 ESTIMATED ENROLLMENTS

PROGRAM CATEGORY 126: DISPLACED HOMEMAKERS

ENROLLMENTS BY GRADE

	ELEMEN-TARY	MIDDLE SCHOOL	JUNIOR HIGH	GRADE 9	GRADE 10	GRADE 11	GRADE 12	POSTSEC-ONDARY	ADULT
FEMALE								19	227
MALE								1	17

ENROLLMENTS BY ETHNICITY

	WHITE NON HISPANIC	WHITE HISPANIC	NON-WHITE HISPANIC	BLACK-NON HISPANIC	AMERICAN INDIAN	ASIAN	OTHER
FEMALE	188	16	9	30		3	
MALE	9	1	1	7			

ENROLLMENTS BY NEED

	HANDI-CAPPED	DISAD-VANTAGED	LIMITED ENGLISH	REGULAR	OTHER
FEMALE	10	172	11	53	
MALE	1	12	3	2	

TOTAL FEMALE	246
TOTAL MALE	18
TOTAL	264

PROGRAM CATEGORY 127: INTERAGENCY INDUSTRY SPECIFIC TRAINING

	ELEMEN-TARY	MIDDLE SCHOOL	JUNIOR HIGH	GRADE 9	GRADE 10	GRADE 11	GRADE 12	POSTSEC-ONDARY	ADULT
FEMALE								12	143
MALE								13	185

ENROLLMENTS BY ETHNICITY

	WHITE NON HISPANIC	WHITE HISPANIC	NON-WHITE HISPANIC	BLACK-NON HISPANIC	AMERICAN INDIAN	ASIAN	OTHER
FEMALE	121	12	5	11	1	4	1
MALE	147	19	9	17	1	5	

ENROLLMENTS BY NEED

	HANDI-CAPPED	DISAD-VANTAGED	LIMITED ENGLISH	REGULAR	OTHER
FEMALE	8	105	12	24	6
MALE	16	91	20	47	24

TOTAL FEMALE	155
TOTAL MALE	198
TOTAL	353

TABLE 20

FISCAL YEAR 1983 ESTIMATED ENROLLMENTS

PROGRAM CATEGORY 132: EXEMPLARY & INNOVATIVE

ENROLLMENTS BY GRADE

	ELEMEN-TARY	MIDDLE SCHOOL	JUNIOR HIGH	GRADE 9	GRADE 10	GRADE 11	GRADE 12	POSTSEC-ONDARY	ADULT
FEMALE			10	20	73	84	437	198	25
MALE			10	20	136	139	450	427	25

ENROLLMENTS BY ETHNICITY

	WHITE NON HISPANIC	WHITE HISPANIC	NON-WHITE HISPANIC	BLACK-NON HISPANIC	AMERICAN INDIAN	ASIAN	OTHER
FEMALE	732	14	19	55		17	10
MALE	1063	24	12	54	1	18	35

ENROLLMENTS BY NEED

	HANDI-CAPPED	DISAD-VANTAGED	LIMITED ENGLISH	REGULAR	OTHER
FEMALE	37	261	26	488	35
MALE	75	309	28	760	35

TOTAL FEMALE 847
TOTAL MALE 1207
TOTAL 2054

PROGRAM CATEGORY 134: GUIDANCE & COUNSELING

ENROLLMENTS BY GRADE

	ELEMEN-TARY	MIDDLE SCHOOL	JUNIOR HIGH	GRADE 9	GRADE 10	GRADE 11	GRADE 12	POSTSEC-ONDARY	ADULT
FEMALE		150	6862	4875	3012	3376	4023	30	85
MALE		145	8974	5714	3538	3484	4156	35	105

ENROLLMENTS BY ETHNICITY

	WHITE NON HISPANIC	WHITE HISPANIC	NON-WHITE HISPANIC	BLACK-NON HISPANIC	AMERICAN INDIAN	ASIAN	OTHER
FEMALE	19213	896	501	1260	236	185	122
MALE	21902	1110	612	1777	297	237	216

ENROLLMENTS BY NEED

	HANDI-CAPPED	DISAD-VANTAGED	LIMITED ENGLISH	REGULAR	OTHER
FEMALE	1598	6020	772	13953	70
MALE	2274	6756	837	[illegible]	[illegible]

FISCAL YEAR 1983 ESTIMATED ENROLLMENTS

PROGRAM CATEGORY 136: REDUCING SEX BIAS

ENROLLMENTS BY GRADE

	ELEMEN-TARY	MIDDLE SCHOOL	JUNIOR HIGH	GRADE 9	GRADE 10	GRADE 11	GRADE 12	POSTSEC-ONDARY	ADULT
FEMALE			164	314	23	12	10		40
MALE			150	480	6	7	10		60

ENROLLMENTS BY ETHNICITY

	WHITE NON HISPANIC	WHITE HISPANIC	NON-WHITE HISPANIC	BLACK-NON HISPANIC	AMERICAN INDIAN	ASIAN	OTHER
FEMALE	489	24	11	31	1	7	
MALE	666	9	6	28		4	

ENROLLMENTS BY NEED

	HANDI-CAPPED	DISAD-VANTAGED	LIMITED ENGLISH	REGULAR	OTHER
FEMALE	63	188	12	300	
MALE	120	239	3	351	

TOTAL FEMALE	563
TOTAL MALE	713
TOTAL	1276

FISCAL YEAR 1983 ESTIMATED ENROLLMENTS

PROGRAM CATEGORY 140: SPECIAL DISADVANTAGED

ENROLLMENTS BY GRADE

	ELEMEN-TARY	MIDDLE SCHOOL	JUNIOR HIGH	GRADE 9	GRADE 10	GRADE 11	GRADE 12	POSTSEC-ONDARY	ADULT
FEMALE					65	64	71		
MALE					104	112	90		

ENROLLMENTS BY ETHNICITY

	WHITE NON HISPANIC	WHITE HISPANIC	NON-WHITE HISPANIC	BLACK-NON HISPANIC	AMERICAN INDIAN	ASIAN	OTHER
FEMALE	76	38	14	63		9	
MALE	161	49	14	70	1	11	

ENROLLMENTS BY NEED

	HANDI-CAPPED	DISAD-VANTAGED	LIMITED ENGLISH	REGULAR	OTHER
FEMALE	3	182	15		
MALE	4	293	9		

TOTAL FEMALE	200
TOTAL MALE	306
TOTAL	506

TABLE 20

FISCAL YEAR 1983 ESTIMATED ENROLLMENTS

PROGRAM CATEGORY 151: CONSUMER AND HOME MAKING
NON-DEPRESSED LOCATIONS

ENROLLMENTS BY GRADE

	ELEMEN-TARY	MIDDLE SCHOOL	JUNIOR HIGH	GRADE 9	GRADE 10	GRADE 11	GRADE 12	POSTSEC-ONDARY	ADULT
FEMALE	410	6	594	93	140	256	355	5	
MALE	410	6	621	48	58	135	175	5	

ENROLLMENTS BY ETHNICITY

	WHITE NON HISPANIC	WHITE HISPANIC	NON-WHITE HISPANIC	BLACK-NON HISPANIC	AMERICAN INDIAN	ASIAN	OTHER
FEMALE	1641	43	22	113	1	31	8
MALE	1292	31	19	84	1	26	5

ENROLLMENTS BY NEED

	HANDI-CAPPED	DISAD-VANTAGED	LIMITED ENGLISH	REGULAR	OTHER
FEMALE	188	360	75	1236	
MALE	232	251	55	920	
TOTAL FEMALE				1859	
TOTAL MALE				1458	
TOTAL				3317	

PROGRAM CATEGORY 151: CONSUMER AND HOMEMAKING
DEPRESSED LOCATIONS

ENROLLMENTS BY GRADE

	ELEMEN-TARY	MIDDLE SCHOOL	JUNIOR HIGH	GRADE 9	GRADE 10	GRADE 11	GRADE 12	POSTSEC-ONDARY	ADULT
FEMALE	850	1303	536	357	351	488	548		
MALE	944	1287	542	120	171	222	213		

ENROLLMENTS BY ETHNICITY

	WHITE NON HISPANIC	WHITE HISPANIC	NON-WHITE HISPANIC	BLACK-NON HISPANIC	AMERICAN INDIAN	ASIAN	OTHER
FEMALE	3428	335	117	418	10	102	23
MALE	2623	275	108	365	11	91	26

ENROLLMENTS BY NEED

	HANDI-CAPPED	DISAD-VANTAGED	LIMITED ENGLISH	REGULAR	OTHER
FEMALE	244	1238	264	2624	63
MALE	195	1040	247	1970	47

TABLE 20

FISCAL YEAR 1983 ESTIMATED ENROLLMENTS

JOINT OCCUPATIONAL-SPECIAL EDUCATION

ENROLLMENTS BY GRADE

	ELEMEN-TARY	MIDDLE SCHOOL	JUNIOR HIGH	GRADE 9	GRADE 10	GRADE 11	GRADE 12	POSTSEC-ONDARY	ADULT
FEMALE				35	41	51	36		
MALE				43	57	56	38		

ENROLLMENTS BY ETHNICITY

	WHITE NON HISPANIC	WHITE HISPANIC	NON-WHITE HISPANIC	BLACK-NON HISPANIC	AMERICAN INDIAN	ASIAN	OTHER
FEMALE	89	25	5	31		1	12
MALE	123	24	6	29			12

ENROLLMENTS BY NEED

	HANDI-CAPPED	DISAD-VANTAGED	LIMITED ENGLISH	REGULAR	OTHER
FEMALE	163				
MALE	194				

TOTAL FEMALE	163
TOTAL MALE	194
TOTAL	357

GOAL 3: TO IMPROVE VOCATIONAL EDUCATIONAL PROGRAMS AND SERVICES. THE PURPPOSE OF THIS GOAL IS TO ENCOURAGE THE DEVELOPMENT AND IMPLEMENTATION OF UNIFORM STANDARDS IN ALL VOCATIONAL PROGRAMS; TO PROMOTE, SUPPORT, AND IMPROVE THE QUALITY OF STAFF DEVELOPMENT PROGRAMS; TO INCREASE STUDENTS' COMPETENCE AND CAREER DECISION-MAKING SKILLS; TO SERVE SPECIAL ADULT POPULATIONS; AND TO MEET EMPLOYMENT NEEDS IN NEW OCCUPATIONAL AREAS.

Staff Training and Development

Teacher training activities included recruitment and pre-service training, a summer professional improvement conference, and local school based projects funded through the Commonwealth Inservice Institute. In addition, teachers and other school staff received inservice training targeted to curriculum improvement from The Massachusetts Vocational Curriculum Resource Center. A summary of teacher training activities and the number of participants appears in Table 21.

TABLE 21

Summary of Fiscal Year 1983 Teacher Training Activities

Activity	Number of Programs	Participants Served	Total Amount Funded
Commonwealth Inservice Institute	23	326	32,000
Summer Professional Development Conference for Vocational Education	27	730	40,450
Recruitment and Training of Ethnic and Linguistic Minorities	3	100	152,367
Massachusetts Vocational Curriculum Resource Center, inservice sessions	79	900	136,468*

Three separate projects were funded to recruit and train ethnic and linguistic minorities as vocational instructors. Fitchburg State College enrolled 44 members of various linguistic groups, The University of Massachusetts in Boston enrolled 39 black men and women, and Westfield State College recruited 17 trainees from both populations. A manual on the recruitment and training activites accomplished by these projects was disseminated through the Department's regional education centers.

The primary funding source for locally initiated inservice training, The Commonwealth Inservice Institute provides the Division supported institute programs for vocational teachers on several topics, including microcomputer applications for vocational classrooms, media production techniques, career and vocational assessment for special needs students, and technical writing skills.

* This figure reflects the total budget for the Center which includes funds for inservice sessions.

The Division also supported a summer conference with 27 four-day workshops for the professional improvement of vocational and occupational educators. The fiscal year 1983 Conference was attended by vocational and occupational educators who were enlightened by presentations from representatives of over 150 organizations including business, industry, labor, higher education, schools, state and federal agencies.

Two outstanding initiatives at the 1983 Professional Improvement Conference were a thirty-hour workshop on microcomputer applications for teachers and a presentation of competency based vocational education curriculum projects. Workshops on culinary arts, electronics, and machine shop were led by Competency Based Vocational Education project staff and State Division of Occupational Education staff. The presentation outlined the steps required to develop, manage, and evaluate a successful competency based curriculum and received an enthusiastic response from the audience of vocational instructors.

Massachusetts Vocational Curriculum Resource Center

The Massachusetts Vocational Curriculum Resource Center provides a constant source of training and other assistance for teachers and school staff on matters related to vocational curricula. More than 5500 volumes are available for reference and loan. The Center also provides such sources as a computerized literature search, inservice workshops, technical assistance, and a quarterly newsletter. In response to 1980 requests for assistance, 7840 documents were loaned. The Center staff presented 79 inservice workshops to more than 900 vocational teachers. Several staff of vocational education courses held a class at the Center to orient students with the Center's materials. The Center maintains a software library for review and offers workshops on the use of microcomputers.

Computer Training for Divison Staff

The Staff at Division of Occupational Education received computer training during fiscal year 1983. The first fifteen-hour series, Microcomputer Literacy I, was designed to give staff members an introduction to the operation and use of microcomputers in educational settings. Microcomputer Literacy II was intended to give staff members a greater degree of familiarity with the major microcomputers and associated software through laboratory experiences. Finally, a specialized one week course on microcomputer applications was presented at Fitchburg State College for a select group of Division staff and other high level Department administrators. This course directly preceded the decision to acquire microcomputers and associated software for the Department for administrative purposes.

A monograph entitled, "Microcomputer Awareness Training," was developed to document these microcomputer training programs for state staff. This comprehensive and unique publication was disseminated to other state departments of education through the National Network for Curriculum Coordination for Vocational-Technical Education. The monograph was also cited by the Local and State Government Committee of the American Society for Training and Development during their 1983 national conference.

COMMUNITY BASED ORGANIZATIONS

During fiscal year 1983, programs in twelve community-based organizations were funded for a total of $425,000. These programs, focusing on educationally disadvantaged minority youths enrolled in or planning to enroll in vocational programs, provided services such as remedial education, guidance and counseling, drop-out prevention, and follow-up.

Of the twelve funded programs, nine were located in Boston, two in Worcester and one in Springfield. A list of community-based organizations funded in fiscal year are 1983 as follows:

Aswalos House (Roxbury YWCA)
La Alianza Hispana
Boston Indian Council
DARE, Inc.
Federated Dorchester Neighborhood Houses, Inc.
Worcester OIC (Opportunities Industrialization, Inc.)
Worcester Y.O.U., Inc. (Youth Opportunities Upheld)
Springfield Urban League
Oficina Hispana Communidad
E.S.A.C. (Ecumenical Social Action Committee)
Chinese American Civic Association
Roxbury Multi Service, Inc.

COOPERATIVE EDUCATION

A total of $364,974 in federal funds was allocated to cooperative programs during fiscal year 1983. Students in cooperative education programs were placed in part-time jobs related to their vocational training. Students participated in alternate periods of employment and instruction at the school. To be eligible, students had to maintain average or above average grades and be in their junior or senior year. A cooperative education director was responsible for finding job placements and monitoring students at the work site. Pupils were paid wages consistent with employees doing similar work. Employers hiring youths from targeted groups were eligible to receive a tax credit.

The following two programs are examples of federally funded cooperative education programs:

Project Place, Milford Public Schools

Twenty-one special needs students in vocational training programs were placed on cooperative assignments. To insure successful placement, a full-time work-site coordinator and part-time translator were hired. The work-site coordinator worked with shop instructors and work-site coordinators to place students in relevant jobs. The translator provided specialized services.

The project exposed vocational students to the world of work and attempted to meet the individualized needs of a special needs student population. In addition to establishing a working relationship with various businesses in the Milford area, the staff developed a resource file for future job placements. Most importantly, students received the necessary special services to be successfully mainstreamed in the vocational learning alternative of their choice.

Cooperative Education Counsellor, Fall River Schools

This project supported the employment of a cooperative education coordinator who was responsible for the job counselling, placement, and follow-up of 320 students. These students included 119 disadvantaged, four handicapped, and nine of limited English proficiency, all of whom benefited from the school's policy of providing support services and of tailoring the student's occupational related activities to meet individual needs.

High school seniors and outstanding juniors, qualified by successful completion of required training, were placed on jobs that were carefully selected by the coordinator. The students worked on a morning or afternoon schedule under cooperative agreements without displacing current employees of the firm. The coordinator met individually with representatives of industry and labor to promote the cooperative education concept and to improve community relations. These personal contacts helped to almost double the placement of students over the previous year and also led to several appointments to the school's craft advisory committees.

Results of Vocational Education Act (VEA) and Comprehensive Employment and Training Act (CETA) Coordination

Introduction

The Comprehensive Employment and Training Act (CETA) of 1973 was designed to provide training leading to employment for specifically targeted disadvantaged populations who, as a result of that disadvantage, constitute the chronologically unemployed (or underemployed) in our society. Though targeted primarily to adult and youth employment, demonstration programs also provided support to at-risk youth.

Coordination between the educational and employment and training communities was encouraged in the original CETA legislation. The legislation also mandated that 22% of all Youth Employment Training Programs funds be spent for in-school programs, and six per cent of Title I training funds be used as a special statewide governor's grant for vocational education. Five per cent of YETP funds was to be set aside as a Governor's Youth Grant. The CETA Amendments of 1978 provided an additional one per cent governor's setaside for coordination activities between manpower and educational/training agencies or institutions.

CETA In Massachusetts in Fiscal Year 1983:

Fiscal year 1983 was the last operational year for CETA, both at the national level and in Massachusetts. Funding across all titles was drastically reduced. Public service titles were defunded and youth title funding was left in great measure to individual localities. In the area of discretionary funding, a ten percent spending cap was implemented. In addition, latitude was given to the individual governors to use some of the discretionary funds for transitional planning purposes for the beginning of the Job Training Partnership Act (JTPA).

Table 22 provides an indication of funding allocations to the Governor's CETA Vocational Education Grant in Massachusetts from fiscal year 1979 (peak funding year) to 1983, with statistics on programs funded and participants served.

Table 22

Annual CETA Vocational Grant Funding Levels in Massachusetts 1979-1983

Fiscal Year	Total Grant Amount	Number of Programs	Number of Participants Served
1979	$3,782,510	35	1,996
1980	2,286,650	24	1,399
1981	3,133,601	51	1,985
1982	2,019,200	30	1,401
1983	1,439,641	28	733
TOTAL	$12,661,602	168	7,514

A more detailed breakdown, with specific reference to program training area, special service populations, and the categories of training agencies employed is provided in Table 23 , for fiscal years 1981-1983.

Fiscal year 1983 program outcomes in terms of placements, training related placements, positive terminations and average hourly wage are included in Table 24 .

Table 23
Comparative Data
CETA Office Operations
Fiscal Years 1981-1983

FUNDING LEVEL	1981	1982	1983
Massachusetts CETA Grant Funding	$3.1 million	$2.0 million	$1.4 million
CETA Office Budget	$210,000	$121,500	$101,500
NUMBER OF PARTICIPANTS SERVED	2,000	1,400	700
STAFFING LEVEL	8	4 1/2	3 1/4
NUMBER OF PROGRAMS FUNDED			
Electronics	14	6	6
Secretarial/Accounting	6	6	6
Prevocational	6	1	2
Machinist	5	2	2
Drafting	3	3	1
Allied Health	3	3	2
Culinary Arts	3	2	3
Multicluster	3	2	1
Welding	2	1	1
Construction Trades	2	0	0
Day Care Teacher	2	0	0
Diesel/Auto Mechanics	1	2	2
Material Management	1	0	0
Phototypesetting/Printing	0	1	0
Building Custodial	0	0	1
TOTAL	51	30	28
NUMBER OF PROGRAMS SERVING SPECIFIC PRIORITY POPULATIONS			
Displaced Homemakers/AFDC Recipients	13	8	6
Handicapped	4	0	1
Offenders	3	2	1
Limited English Proficient	3	1	0
TOTAL	23	11	8
TRAINING SITES			
Public Secondary/Postsecondary	24	11 1/2	6
CETA Skill Center	11	12	14
Private/Proprietary Schools	9	4	3
Correctional Facilities	3	2	1
Community Based Organizations (CBO's)	2	1/2	4
Private Industry	1	0	0
Union - Operated Site	1	0	0
TOTAL	51	30	28

Fiscal Year 1983
CETA VOCATIONAL EDUCATION GRANT IN MASSACHUSETTS

Prime Sponsor	Program	Program Operator	Total Participants (#)	Total Placements (#)	Total Placements (%)	Training Related Placements (#)	Training Related Placements (%)	Combined Placement/ Positive Terminations (#)	Combined Placement/ Positive Terminations (%)	Average Wage $/Hour
Balance of State										
Chelsea	Diesel/Auto Mechanics	Skill Center	35	22	(63)	20	(57)	27	(77)	$ 5.00
	Clerical	Skill Center	15	8	(53)	8	(53)	12	(80)	4.60
Northampton	Machine Trades	Skill Center	15	13	(87)	9	(60)	14	(93)	5.67
	Clerical	Skill Center	27	23	(85)	21	(78)	23	(85)	4.43
	Welding	Lawrence Rehabilitation Center	18	14	(78)	12	(67)	15	(83)	6.30
Lawrence	Building Maintenance	Lawrence Rehabitation Center	10	7	(70)	6	(60)	7	(70)	4.05
Marlboro	Electronics Technician	Skill Center	63	59	(94)	54	(86)	60	(95)	6.15
Norwood	Clerical	West Suburban YWCA	46	28	(68) +	26	(63)+	34	(74)++	4.93
Quincy	Culinary Arts	Skill Center	22	18	(82)	17	(77)	20	(91)	5.07
	Machine Trades	Skill Center	22	19	(86)	15	(68)	19	(86)	6.06
Southbridge	Clerical/ Word Processing	Skill Center	15	14	(93)	12	(80)	14	(93)	4.60
	Electronics Technician*	Roxbury Community College	26	8	(73)+	8	(73)+	23	(88)**	5.46
	Electronics Technician*	Women's Technical Institute	30	3	(33)+	3	(33)+	21	(70)+++	4.94
	Nursing Assistant	Dimock Community Health Center	19	12	(63)	12	(63)	13	(68)	5.68
Boston	Opertating Room Technician	Dimock Community Health Center	16	12	(75)	12	(75)	12	(75)	6.06

++ Includes five (5) carryovers, for placement into JTPA.
+ Based upon completions to date.
** Includes thirteen (13) carryovers, for placement into JTPA.
+++ Includes eighteen (18) carryovers, for placement into JTPA.
* Major prevocational component also included with grant funds

TABLE 24

CETA VOCATIONAL EDUCATION GRANT IN MASSACHUSETTS (continued)
(Fiscal Year 1983)

Prime Sponsor	Program	Program Operator	Total Participants (#)	Total Placements (#)	(%)	Training Related Placements (#)	(%)	Combined Placement/ Positive Terminations (#)	(%)	Average Wage $/Hour
Brockton	Culinary Arts	Brockton High School	18	15	(83)	13	(72)	15	(83)	4.50
Cambridge	Electronics Technician	Women's Technical Institute	38	24	(63)	23	(61)	30	(79)	5.73
Fall River	Electronics Technician	Bristol Community College	22	4	(44)*	1	(11)*	17	(77)**	5.75
Lowell	Advanced Construction Training (ACT)	Greater Lowell Regional Vocational Technical High School	39	24	(62)	16	(41)	27	(69)	5.61
New Bedford	Auto Mechanics	Skill Center	28	12	(60)*	12	(60)*	20	(71)+	4.00
Pittsfield	Multi Cluster (Shop Skills)	Berkshire County House of Correction	22	15	(68)	11	(50)	20	(91)	4.60
	Culinary Arts	Mount Greylock Regional High School	7	6	(86)	4	(57)	7	(100)	4.51
Salem	Administrative Secretary	Skill Center	50	40	(80)	36	(72)	43	(86)	4.77
	Drafting***	Skill Center	28	8	(29)	3	(11)	20	(71)	4.37
Springfield	Electronics Technician	Skill Center	72	30	(68)*	27	(61)*	58	(81)+	5.03
Worcester	Clerk General	Skill Center	28	16	(57)	15	(54)	17	(61)	4.15
		Averages			(72.6)		(63.2)		(80.0)	$5.22

* Based upon completions to date.

** Includes thirteen (13) carryovers into JTPA.

*** Program has had unusual placement difficulties in fiscal year 1983, will not be offered in fiscal year 1984.

+ Includes eight (8) carryovers into JTPA. ++ Includes twenty-eight (28) carryovers into JTPA.

NOTE: Placement statistics are reported as of ninety (90) days after completion of training and therefore somewhat understate

Results of VEA/CETA Coordination in Massachusetts in Fiscal Year 1983

Results of Vocational Education Act (VEA) and CETA Coordination as proposed in the Massachusetts Three Year State Plan for Fiscal Year 1983 are addressed below:

A. Annual Plan Reviews

The Massachusetts Three Year Plan was reviewed by Staff Employment & Training Council.

B. Interagency Agreements

A Memorandum of Agreement was negotiated between the Deparment of Manpower Development and the Department of Education for fiscal year 1983 and remained in effect during the fiscal year.

C. Local Manpower Review of P.L. 94-482 Applications

The local CETA Manpower Planning Councils (Boards) reviewed through their chairperson P.L. 94-482 funding applications from local school districts. Planning information from these school districts was also reviewed.

D. Joint Funding Across Agency Lines (Education/Manpower)

A Memorandum of Agreement was executed between the Departments of Education and Manpower to provide interagency funding support. Competency-based prevocational and vocational components, leading to an "alternative" high school diploma for non-incarcerated youthful offenders residing in Boston, was developed.

The Bay State Skills Corporation continued its programs to disadvantaged youth. A million dollars was allocated to fund several summer computer camps modeled after Project COFFEE (a national demonstration dissemination model). In addition, joint funding for the Commonwealth's Jobs for Bay State Graduates occurred during fiscal year 1983.

E. More Effective Utilization of CETA Funds by Local School Districts

With reductions in CETA funding, decisions with regard to program operations tended to favor CETA-operated skill centers over private and public educational sectors. As seen in Table private/public educational sites were reduced in fiscal year 1983 to 47% of their fiscal year 1982 level. During the same period with a 40% reduction in total program offerings, CETA skill centers saw a modest increase in the number of program offerings.

F. Fundamental Restructuring of the Education/Manpower Human Service Delivery of the Commonwealth:

A state-level task force including representation from education and manpower at both state and local levels was covened by the Massachusetts Board of Education in the fall of 1982. Recommendations regarding the preparation for employment of in-school youth were developed. Their efforts have resulted in a Report on Public School Youth Education and Employment which was presented to the Board in December 1983. The report, calling for modifications to the Commonwealth's Basic Skills Improvement Policy, improved partnerships at state and local levels and increase in the state's in-school focus on prevocational skills acquisition was enthusiastically approved by the Board. At the same time, an educational subcommittee of the Governor's Job Training Coordination Council under JTPA was preparing a similar report identifying school dropouts and at-risk in-school youth as target populations for state-wide planning and program development.

With the impending demise of CETA, a new role for the Department of Education under JTPA was being structured by the Governor of the Commonwealth. That role would fall into three areas: (1) coordination facilitator among the various educational interests, as well as between education and the private sector; (2) provider of technical assistance to local/regional programs; (3) and articulator of statewide educational concerns as the basis for program initiatives.

G. Coordination/Dissemination of Labor/Market Supply/Demand Information:

During fiscal year 1983 the Department contributed $25,000 with additional fiscal support from the CETA Balance of State Private Industry Council to support the labor market supply and demand information efforts of the Division of Employment Security (DES). The Department participated in a formal critique of DES reports in an attempt to make data more useful.

H. Resources Coordination for Career Exploration/Vocational Training of In-School Youth

In November 1982 the Departments of Education and Manpower Development jointly sponsored a statewide career exploration workshop for CETA youth practitioners. Mr. William M. Bloomfield, a nationally noted career education consultant, led the workshop.

I. Improvement of Local Linkages Between Education and Manpower In Serving Previously Unserved In-School/Out-of-School Populations

During fiscal year 1983, a great deal of effort was expended to prepare for the advent of JTPA. Included were presentations on the new legislation before a variety of educational groups and a series of six regional education workshops on JTPA conducted jointly by staff from the Department of Education and the Executive Office of Economic Affairs.

Vocational Programs for Postsecondary and Adult Populations

During fiscal year 1983 postsecondary and adult students were enrolled in vocational programs. The federally funded programs provided skills training to unemployed and underemployed adults, displaced homemakers, and municipal personnel displaced by a reduction in staff. When applying for funds, applicants were required to indicate a labor market need and recruit students from priority populations.

Seven occupational skills training programs were designed for Displaced Homemakers. Funded at $192,000, these programs were designed to provide skills training and supportive counseling to women seeking to re-enter the work force. A total of 237 displaced homemakers were served. Skills training was offered in the following occupations: cook/chef, word processing, secretarial, office clerical, administrative bookkeeper, and dental assistant.

Postsecondary programs took place at fourteen community colleges, seven correctional institutions, and six vocational schools. Skills training programs offered at each of these institutions are briefly described.

Community Colleges

Nearly half of the funded projects taking place at community colleges were computer related. Other projects offered adults training in such areas as graphic arts, nursing, culinary arts, and court and conference reporting. Two computer programs and one word processing program are highlighted.

Training to Launch a Career, Middlesex Community College

During the 1982-1983 academic year Middlesex Community College recruited 37 computer programming and operations managers with 33 students completing the first year. In addition to computer training, students received some academic instruction. Students operated the Wang VS/80 during courses in principles of data processing, BASIC, Fortran, COBOL I, COBOL II and programming. Students also learned computer vocabulary and applications through the completion of computer related courses. In addition, students became proficient at using manuals.

Certificate in Computer Servicing, Northern Essex Community College

This program provided intensive computer service training to meet the identified needs of area business and industry. Of the students enrolled, 30% were "riffed teachers" (laid off due to reduction in force), 20% were displaced homemakers, and 20% were minority. The curriculum was developed with input from the Electronic Technology Advisory Committee composed of engineers and managers from high tech companies. Grant monies were spent to upgrade the CPU trouble-shooting course. Contacts were made with the Division of Employment Security and the following companies: Western Electric, Honeywell, Wang Labs, Raytheon, and Hewlett Packard.

This program was considered successful and will be continued as a regular day division program with state funding.

Word Processing for Displaced Homemakers, Holyoke Community College

This project trained 74 displaced homemakers in typing, machine transcription, communications, and word processing. Each participant had their skills evaluated before proceeding with an individualized program. Upon completion, many participants enrolled in a degree program; others sought employment in word processing. A career planning component enabled participants to identify skills and practice interviewing techniques.

Correctional Institutions

Skills training was offered to selected inmates in such areas as emergency medical technician, electronic test technician, plant and building maintenance; carpentry, and machine occupations. Programs were designed to provide inmates with employable skills. Several programs had a job placement component. A program offered at the Middlesex House of Correction is described.

Project MOVE, Middlesex County House of Correction

Project MOVE trained unemployed and underemployed inmates as electronic test technicians. Carefully screened men participated in a 34 week cycle of classroom and laboratory technology culminating in microprocessor functions. The curriculum for the course was drawn from one developed by the Massachusetts High Technology Council. Skill training was supplemented with education, counseling, and job placement assistance.

The program exceeded its enrollment goals. Graduates of the program received advanced placement status in Sylvania Tech's rigorous Test Technician Program.

Vocational Schools

Graphic arts, nursing, data processing, and computer electronics were among the postsecondary programs offered at vocational schools. Programs attempted to prepare postsecondary students for an entry level position in local industries or hospitals.

Instructional Programs

Quality and Availability of Instructional Offerings: In fiscal year 1983, there were approximately 150 different vocational education instructional programs available for students in secondary and postsecondary schools. The goal of these programs was to prepare students for employment or for a career requiring other than a baccalaureate or advanced degree.

Federal funds enabled school systems to develop new programs and expand program offerings.

The following describes a small sample of the instructional programs offered in six occupational areas: health, vocational home economics, trade and industry, technical, marketing and distributive education, and vocational agriculture.

HEALTH

Health Upgrade, Worcester Trade Complex

This project served 196 students in the Health, Health Assistant, and Medical Assistant programs. A summer exploratory program was responsible for generating interest in the health program and increasing enrollment. Through the purchase of four patient models and supplementary equipment, males could be recruited into a formerly all female program and more students could be served.

Dental Assistant Program, Boston Public Schools

Students received the classroom instruction and clincal experience needed to be employed as dental assistants. A full time instructor was hired and instructional materials were purchased. The implementation of a dental assistant program expanded the health related program offerings at the Humphrey Occupational Resource Center and provided training in a growing field.

VOCATIONAL HOME ECONOMICS

Food Management for the Handicapped, Abington Public Schools

An instructor was hired to give individualized instruction in basic food preparation to seven handicapped students. Basic food management skills were evaluated, and student knowledge was measured through the use of oral pre and post tests.

The project provided an alternative program for students who were having difficulties in the regular program. In addition to learning about good nutrition, students were trained for entry level jobs in food management.

Caring for Children, Framingham Public Schools

An early childhood education program was offered to students in two city high schools. The program had two major objectives: (1) the development of personal parenting skills, and (2) the development of employment skills in the child care field. Through a practical laboratory approach, students were trained to identify the developmental growth of the young child. In addition, students kept a daily log of their activities, attended parent conferences, and developed a case study.

This project allowed 49 students from two high schools to meet together for daily planning, sharing, and participation in an early childhood education program. In addition to gaining employment skills, students developed parenting skills. Supplementing activities in the nursery center, field trips were arranged to the Wayland Montessori School, Children's Museum, Framingham State College Laboratory Nursery, and the British Infant School. Of the program participants, more than half intend to pursue careers related to child care.

TRADE AND INDUSTRY

Automotive Diesel Service, Quincy Public Schools

The project introduced diesel mechanics into the existing power mechanics program. This new skills training component expanded the program to include cooling and charging systems, circuitry, engine rebuilding, and safety as related to diesel mechanics. Twenty-four students completed this program and were placed with automotive, truck, or marine diesel agencies. This diesel training program has achieved a placement rate of 80% of the graduates into the diesel industry during its existence.

TECHNICAL

Computer Electronics Program, Assabet Valley Vocational Technical School

Twenty unemployed adults who were motivated to learn new job skills received classroom and laboratory instruction in computer electronics. Developed through a collaborative effort between the school district and industry, the program operated jointly between Assabet Valley Vocational School and Quinsigamond Community College. The curriculum was developed with assistance from high technology firms in the Marlboro area.

Upon completing the program, adults had acquired the skills needed to obtain employment in the computer electronics field. Participants earned college credits which could be applied toward a degree. In addition, the program expanded the adult program offerings at Assabet Valley Regional Vocational School.

Electronic Service Technician, Springfield Vocational Technical High School

Sixty students in grades ten through twelve, including eight females, 41 disadvantaged, eighteen blacks and five hispanics, were enrolled for 540 hours of shop training plus equal time for related theory instruction. The project funded two vocational instructors and reporting services necessary for project management.

The course of study for this program covers basic electronics, digital logic, and microprocessor technology. Students who graduated from this program were not restricted to a single vocational speciality but were prepared for their choice of many directions. These choices ranged from entry level electronic service technician in fields as varied as video technology, robotics and biomedical research to pursuit of postsecondary technical education.

MARKETING & DISTRIBUTIVE EDUCATION

Distributive Education Community Based, Framingham Public Schools

Students in this distributive education program received instruction in goods distribution, marketing, merchandising management, financial analysis and the utilization of the computer for inventory control. A cooperative component insured practical work experience for those students who chose to particpate.

The establishment of a distributive education program allowed students in grades 10, 11, and 12 to develop employment skills in an area that had previously been unavailable. The program was designed to meet a high labor market demand in the Framingham/Natick area.

VOCATIONAL AGRICULTURE

Landscaping, Hampshire Educational Collaboratrive

This project funded a part-time landscaping instructor and part-time academic remediation instructor. Through the use of projects and practical applications, 12 disadvantaged students received training in various aspects of landscaping. Students went into the community where they landscaped a hospital and high school. Students also developed landscaping plans for people and organizations in the community. Other activities included running a soil testing clinic, learning small engine repair, and starting new plants under lights. Through this project students improved social skills and developed a sense of responsibility.

Upgrading and Expanding Vocational-Technical Instructional Programs

The upgrading and expansion of vocational-technical instructional programs in local school systems in Massachusetts has occurred during Fiscal Year 1983 despite serious financial challenges to the support system for public education in the Commonwealth. This upgrading and expansion of program offerings may be viewed from several perspectives which contribute to program quality: equipment replacement, facilities expansion or improvement, updating and improving the programs's course of study, and the involvement of new staff with particular qualifications or the professional growth of existent faculty are specific examples of such program upgrading. The following examples are presented to illustrate this element of vocational technical education in Massachusetts.

Automotive Emissions Technology, Minuteman Regional Vocational Technical School

The assistance of federal vocational education funds supported the purchase of a $15,000 computerized automotive emissions machine, which has been utilized not only to upgrade the secondary day school program but also to collaborate with the State Department of Environmental Quality Engineering to offer an evening school training program for vocational school instructors. These instructors from other vocational schools will recive the latest emissions control training and will train garage and dealer mechanics in their evening school programs.

Computer Technology, Blackstone Valley Regional Vocational Technical School

This new program was introduced as part of a school expansion project which developed over a two year period The school contacted the Division of Occupational Education to request consideration of state apprval for a computer technology program and it was agreed that Blackstone Valley would have a computer technology instructor who would be responsible for the development of a statewide model competency based vocational education curriculum. This decision enabled the new program to begin with the structure of a sound course of study already developed. A new and important skills training program is now in place at Blackstone Valley and a new vocational instructor's curriculum development and management skills have been considerably enhanced.

Second Campus, South Shore Regional Vocational Technical School

A major expansion of this school district's program offerings resulted from the opening of a second campus in a renovated school building in Abington. The regular campus of South Shore Regional is in Hanover. The assistance of federal vocational education funds enabled this regional vocational-technical school to offer these new programs in Fiscal Year 1983: culinary arts, cosmetology, electrical, graphic arts, marine technology, packaging, and painting and decorating.

GOAL 4: TO PROMOTE INFORMED TRAINING AND CAREER CHOICES; TO ENABLE VOCATIONAL GUIDANCE COUNSELORS TO PROVIDE SOUND COUNSELING TO A BROAD RANGE OF PERSONS; TO PROMOTE THE COORDINATION OF VOCATIONAL GUIDANCE AND COUNSELING WITH THE BUSINESSES, INDUSTRIES AND PROFESSIONS WHICH EMPLOY THE GRADUATES OF VOCATIONAL EDUCATION PROGRAMS; AND TO ENCOURAGE THE FORMATION OF PEER AND GROUP COUNSELING ACTIVITIES TO RETAIN STUDENTS ENROLLED IN PROGRAMS THAT ARE NONTRADITIONAL FOR THEIR SEX.

GUIDANCE AND COUNSELING

The Governor of Massachusetts declared the first week in November, 1982 Career Guidance Week. During this week special recognition and publicity were given to career guidance activities in local schools.

During the year vocational guidance counselors were invited to attend two conferences. One, held in November, was planned jointly between the Department of Education and the Massachusetts Vocational Guidance Association. Entitled Career Development in Changing Times, workshops were offered in such areas as Employment Trends for the 1980's, Realistic Counseling for People in Transition, and Working Through Racism, Ageism, Sexism. The second conference, held in May, was open to all vocational counselors throughout the state.

A total of $834,528 in federal funds was designated for programs aimed at improving guidance and counseling services in local schools. Staff at the state level provided technical assistance in proposal writing and monitored guidance programs after they were funded.

The following three programs are examples of guidance, counseling, and placement projects which were funded during fiscal year 1983.

Coordinated Education Services, Greater Lawrence Regional Vocational School

The primary goal of this program was to reduce student absenteeism. Three part-time staff, hired to work after school and during early evening hours, notified parents by phone when students were absent. By improving attendance, students were encouraged to complete their skill training program in preparation for gainful employment. On days when absences were light, staff provided job placement services to students leaving vocational education programs.

This project was successful in reducing the amount of student absenteeism and increasing the number of students who completed high school. As a result of the phone calling effort and follow-through, attendance improved from 85% to 93%. Feedback from parents was positive with many indicating that they would like this service to continue. Another component of this project was the publication of the school catalog in Spanish.

Expansion of Guidance and Counseling, Chicopee Public Schools

A vocational guidance counselor provided vocational guidance and counseling services to some 726 eighth and ninth grade students. The addition of this counselor reduced the case load of the other counselors and broadened the services offered. The counselor worked closely with ninth grade exploratory students, and helped these students choose a vocational program, select academic courses appropriate to their academic ability, and make career decisions. The project is credited with providing more outreach and communication with feeder schools and increasing enrollments in nontraditional careers for both men and women.

The Employment Connection, Worcester Public Schools

This program has greatly expanded the career development experiences of students in the Worcester Public Schools in a cooperative venture with major employers in that area. The project provided services through a career community specialist to 380 students enrolled in career development courses. Activities included an interest inventory, use of a computerized occupational information system, individual and group career conselling, work site explorations and internships.

A highlight of this project was the extensive involvement of major companies in the Worcester area. The following firms were participants in the program: Norton Company, Morgan Construction Company, Heald Machine, Jamesbury Corporation, Wyman and Gordon Company. The direct participation of these five companies has led to the development of industry site experiences in 33 firms and 80 community locations for the secondary students involved in this project. The project staff have been selected to present their program to other secondary school personnel at a statewide meeting, "Partners for Excellence Conference," sponsored by the Massachusetts Department of Education.

STUDENT ORGANIZATIONS

There were three active student organizations in Massachusetts during the 1982-1983 school year.

Distributive Education Clubs of America

Distributive Education Clubs of America (DECA) provides leadership training to secondary students in marketing and distributive education. In fiscal year 1983 the Massachusetts Association of DECA had 130 chapters and 2,400 members. Throughout the year a DECA coordinator, working at the state level, distributed informational materials on conferences, competitive events, instructional updates, and other professional activities to affiliated chapters. All marketing and distributive education students were invited to attend a fall leadership conference where workshops in time management, decision making, and communications were offered. The year's main events were a state conference held in Worcester followed by a national conference in New Orleans.

"Celebrate Your Future . . . DECA Opens the Door to Success" was the theme of the three day 24th Annual State Career Development Conference in March. Six hundred and fifty students qualifying through eight district conferences, participated in competitive activities which included role playing, problem solving, and written tests. These activities were evaluated by business people and educators to determine the most outstanding students in each occupational category. Some 100 students were selected to represent Massachusetts in the National DECA Career Development Conference where fourteen Massachusetts students received national recognition. More than twice as many Massachusetts students were recognized as compared to the previous year.

Vocational Industrial Clubs of America (VICA)

The Vocational Industrial Clubs of America (VICA) is a national organization for students preparing for futures in the trade, industrial and health occupations. Through training, students acquire occupational skills necessary to enter the labor market. VICA club activities offer students personal development in citizenship, leadership, and character.

During the 1982-83 school year there were 1843 state members. A major activity was the Skill Olympics. In March, VICA members participated in district Olympics where successful participants were chosen for the state contest. The State Skill Olympics, hosted by the Northeast Regional Vocational Technical High School, sponsored 725 members in 37 skill and leadership categories. Approximately 175 representatives from industry judged the activities.

The 35 gold medal winners represented Massachusetts in National Competition in Louisville, Kentucky. Twenty students received honor or merit certificates in their occupational contests. In addition, one student won a gold medal in plumbing and pipefitting, and another won a bronze medal in commercial food trades.

Future Farmers of America (FFA) Future Farmers of America is a National Vocational Student Organization for students enrolled in agriculture/agribusiness programs. The purposes of the FFA are to develop competent and productive leadership in agriculture; to create and nurture a love of country life; to strengthen the confidence of students of vocational agriculture in themselves and their work; to create more interest in the intelligent choice of agricultural occupations; to encourage members in the development of individual farming programs and establishment in agricultural careers; to encourage members to improve their home and its surroundings; to participate in worthy undertakings for the improvement of agriculture; to develop character, train for useful citizenship, and foster patriotism; to participate in cooperative efforts; to encourage and practice thrift; to encourage improvement in scholarship; and to provide and encourage the development of organized rural recreational activities.

In Massachusetts during the 1982-83 school year there were 957 members in 18 chapters. Members of the Massachusetts state FFA Association participated in a variety of activities between July 1982 and June 1983. Several of these events and their location are highlighted.

Event	Location
National FFA Conference for State Presidents	Washington, D.C.
National Leadership Conference for State Officers	Maine
Eastern States Exposition	Springfield, MA
Chapter Officer Leadership Camp	Springfield, MA
State Contest:	University of Massachusetts
National FFA Convention	Kansas City, MO
Livestock Judging & Showing Contest	University of Massachusetts
Poultry Contest	Bristol County Agricultural School
Chapter Contests & Elections	18 High Schools
53rd Annual State FFA Convention	Chicopee, MA.
State Officer Leadership Training	Pathfinder Regional Vocational-Technical School
Chapter Awards Banquets	
Dairy Festival Tri-State Public Speaking Contest	University of Rhode Island

GOAL 5: TO DEVELOP AND IMPLEMENT VOCATIONAL PROGRAMS AND/OR SERVICES THAT PROMOTE ECONOMIC DEVELOPMENT WITHIN MASSACHUSETTS.

Apprenticeship Training

Apprenticeship training is administered cooperatively between the State Department of Labor and Industry and the Department of Education. While apprentices are recruited and indentured (i.e. bound by contract) through the Department of Labor and Industry, classroom instruction, teacher approval, and program monitoring are provided by the Department of Education.

During the 1982-83 school year, 2509 apprentices were trained in 23 public schools. Approximately one-half of the apprentices received training in Boston. Although apprenticeship training was offered in 30 trade areas, the largest concentration of students was found in 12 construction trades including carpentry, plumbing, and electrical.

Local schools were required to submit monthly evaluation and attendance reports to the State Department of Education, who in turn forwarded the reports to the Department of Labor and Industry. State funding amounting to $400,000 defrayed teachers' salaries and clerical costs.

Entrepreneurship

A state Task Force on Entrepreneurship was organized as one mechanism to promote economic development in Massachusetts. This effort was recommended by the Worcester City Manager with support from the Division of Occupational Education and the Minority Business Development Agency of the Department of Commerce and Development.

Massachusetts was selected by Oklahoma State University as one of twenty pilot states to participate in a national program to promote entrepreneurship education. Oklahoma State University will provide technical assistance to the Task Force and will collaborate in the presentation of a Statewide conference.

The goal of the Task Force on Entrepreneurship is to unite Massachusetts education business, industry, and government in an attempt to foster the development of training programs which will provide students and adults with the skills and knowledge required for success in private business ventures.

Interagency Industry Specific Skills Training

Several training programs were funded during Fiscal Year 1983 to provide employable skills for persons who have completed or left high school or who have already entered the labor market. The purpose of these projects was to respond to an industry's validated request for trained personnel; to respond to training needs of the unemployed and underemployed; and to promote cooperation and planning among diverse employment and training agencies.

The school district or community college must identify an industry which will make a committment to the hiring of program completers at a starting wage consistent with current standards. Documents of support from the industry are required. Curricula is jointly developed by the educational institution and the participating industries. Industries are encouraged to contribute their special expertise, equipment, and personnel in order to ensure their involvement and committment.

The following examples illustrate the interagency industry specific skills training programs funded during Fiscal Year 1983.

Technical Writing, Middlesex Community College

This program trained a total of twenty-three adults, thirteen females and ten males to become software technical writers. The advisory committee to this project included representatives of WANG Laboratories, Inc., Digital Equipment Corporation, Honeywell, Inc., Data General, Prime Computer, Inc., and the Massachusetts Teachers Association. In addition to 25 hours of class time each week, students had at least ten hours of terminal time. The two instructors for this training program were employed in industry and the curriculum was shaped by the industry representatives.

All twenty-three trainees were placed in technical writer positions upon completion of this program. The following firms were among the companies which hired program graduates: Digital Equipment Corporation, Nippon Electric, Honeywell, Prime Computer, GTE, Sylvania and Applicon.

Computer Aided Training, Shawsheen Valley Regional Vocational-Technical School

A total of 44 adults, 32 female and twelve male, were trained for positions as computer programmers, computer operators, or word processors. The programming instruction was 21 weeks in duration, the word processing preparation was for six weeks, and computer operater training was conducted over an eight week period. The Computer Aptitude Test Battery was administered to the applicants for the computer programmer training as a selection technique. A unique aspect of this training program was the decision to emphasize the instruction of COBOL programming language with BASIC language as the secondary element.

This emphasis on COBOL as a language was a recommendation of the project's industry based advisory committee and the benefit of this approach was evidenced by the very high placement rate. The placement rates for each component were very impressive: computer operator (90%), computer programmer (95%), word processor (100%)

The following examples of placement are offered to exhibit the participation of industries in Massachusetts in this endeavor:

Computer Operator	Energy Management Corporation Spaulding and Slye WANG Laboratories
Computer Programmer	Design Options New England Power Control Data Old Colony Bank Digital Equipment Corporation

The twelve word processors were placed with twelve different firms.

Retraining and Instruction Geared to High Technology, Greater Lowell Regional Vocational Technical School

Thirty-eight former public employees and other unemployed persons received training of 1,000 hours in computer programming and office information systems. A project steering committee, comprised of representatives of major high technology employers, higher education institutions, and human service representatives met on a monthly basis at the training site. Members contributed information and counsel in areas of their expertise and referred other requests to appropriate specialists within their organizations. Computer equipment donations valued at $20,000 were secured through the efforts of one member.

This program provided intensive practical instruction in the following topics: Word Processing, Electronic Mail, Phototypesetting, BASIC Computer Programming, Advanced Data Processing Concepts, Business Systems Design, and COBOL Computer Programming. An internship option was selected by approximately twenty per cent of the trainees as a supplement to their classroom learning.

Training related placement was accomplished at an eighty-eight per cent level. The project placed trainees at a considerable number of companies and in a variety of technical positions which included:

Software Tech Writer	LTX Corporation
Programmer	WANG Laboratories
CAD-CAM Programmer	Telesus
Technical Marketing	Dowe Engineering
Technical Writer	NEC Corporation
Computer Operator	Hewlett Packard
Assistant Controller	Interstate Electric

Exemplary and Innovative Projects

Twelve exemplary and innovative projects for which Fiscal Year 1983 represented the final year of support from Public Law 94-482 are listed in Table 25. The disposition of these projects is indicated in this table for the convenience of the reader.

TABLE 25

Program Improvement Grants
Funded in Fiscal Year 1983

ORGANIZATION	PROJECT TITLE	AMOUNT FUNDED
Research, Section 131		
Technical Education Research Centers, Inc.	A study of the Validity of Admissions Criteria Used in Secondary Vocational Schools in Massachusetts	$99,375
Exemplary and Innovative, Section 132		
Jointly Funded with Division of Special Education		
Cambridge Public Schools	Providing Individualized Vocational Occupational Training** (note: $9,239 was funded under Section 132)	30,000
Douglas Public Schools	Experience-Based Career Education** (note: $13,000 was funded under Section 132)	16,000
Greater Lawrence Educational Collaborative	Work Experience and Training Program* (note: $10,950 was funded under Section 132)	14,144
Northampton-Smith Agricultural School	Maintenance Support Program* (note: $46,061 was funded under Section 132)	46,061

*Program continued with local funding.
** Some elements of Program continued with local funding.

Table 25

Program Improvement Grants
Funded in Fiscal Year 1983

ORGANIZATION	PROJECT TITLE	AMOUNT FUNDED
Divisionally Funded		
Blue Hills Vocational Technical Institute	Technical Skills for the Eighties*	100,000
Greater Fall River Vocational Technical School	Application of Computer Literacy to Vocational Technical Programs*	100,000
Montachusett Regional Vocational Technical School	Basic Vocational Language and Skills Training*	56,831
Greater Lowell Regional Vocational Technical School	Project S.W.I.T.C.H. (Specific Writing Instruction and Training in Computer Hardware)*	70,341
Quincy Public Schools	Programming Application and Management*	70,000
Quincy Public Schools	Programmers*	30,000
Worcester Trade Complex	Project CAD/CAM*	125,000

*Program continued with local funding.

Table 25

Program Improvement Grants
Funded in Fiscal Year 1983

ORGANIZATION	PROJECT TITLE	AMOUNT FUNDED
Curriculum Development, Section 133		
Cape Cod Regional Vocational School	Competency Based Curriculum in Auto Mechanics	13,333
Pathfinder Regional Vocational Technical School	Competency Based Curriculum in Auto Mechanics	13,000
Leominster Public Schools	Competency Based Curriculum in Auto Mechanics	13,000
Franklin County Technical Vocational School	Competency Based Curriculum in Machine Trades	14,806
Greater Lowell Regional Vocational Technical School	Competency Based Pre-Service Curriculum in Computer Technology	13,333
Greater Lowell Regional Vocational Technical School	Competency Based Curriculum for Electronics Technicians	17,000
Minuteman Regional Vocational Technical School	Competency Based Pre-source Curriculum in Electronics Technology	16,943
Norfolk County Agriculture School	Competency Based Curriculum in Ornamental Horticulture	14,300
Worcester Trade Complex	Competency Based Curriculum to Prepare Nursing Assistants	13,000
Boston Public Schools	Competency Based Curriculum in Hotel and Lodging	16,999
Minuteman Regional Vocational Technical School	Competency Based Curriculum in Hotel and Lodging	16,999
Blackstone Valley Vocational School	Competency Based Curriculum for Computer Programmer	13,528

Table 25

Program Improvement Grants
Funded in Fiscal Year 1983

ORGANIZATION	PROJECT TITLE	AMOUNT FUNDED
Boston Public Schools	Competency Based Curriculum in Child Care	13,326
Worcester Trade Complex	Competency Based Curriculum for Child Care Assistants	13,000
Boston Public Schools	Competency Based Curriculum in General Merchandising	13,326
Greater Lowell Regional Vocational Technical School	Competency Based Curriculum in General Merchandising	13,333
Greater Lowell Regional Vocational Technical School	Competency Based Curriculum in Food Management, Production, and Services	26,998
Tri-County Regional Vocational Technical School	Competency Based Curriculum in Area of Food Management, Production, and Services	17,000
Massachusetts Vocational Curriculum Resource Center	The Massachusetts Vocational Curriculum Resource Center	144,748
Technical Education Research Centers, Inc.	Technical Assistance - Staff Development for Competency Based Vocational Education	60,000

Four of these exemplary and innovative projects were funded for the purpose of expanding occupational education opportunities for special needs students. These projects were the result of a cooperative effort by the Divisions of Occupational and Special Education which issued a joint request-for-proposals for this goal. Two of these projects are presented here to illustrate the objectives and accomplishments of this joint endeavor in two dissimilar educational settings.

Maintenance Support Program, Northampton-Smith Agricultural School

Jointly funded between the Divisions of Occupational Education and Special Education, the maintenance support program offered vocational skills training in agriculture, carpentry, automotive, health and welding, related vocational instruction, remedial math and English, and counseling. Prior to entering the program the special needs students were unable to function totally or partially in the mainstream. With additional instructional and counseling support, however, students were assisted in moving into regular classes, and the school could serve a larger number of special needs students. Twenty-seven students were served.

Project accomplishments included the following:

a. All five seniors in the program graduated; three of the five were placed in jobs immediately after graduation.

b. Of fifteen sophomores and juniors, ten were placed in summer jobs.

c. Four students were partially mainstreamed; one was recommended for full time placement in auto body for the following year.

d. One student, a junior, was a student council member.

Work Experience and Training Program, Greater Lawrence Educational Collaborative

This project provided on-the-job training for eight (8) developmentally disabled students who had been enrolled in sheltered workshops. The Greater Lawrence Educational Collaborative provides special needs services for members, in this case vocational rehabilitation, within local public facilities at half the cost of private contractors, or less.

One week of supervised, industry-based full-time paid skill training in the area of electromechanical assembly and soldering was alternated with one week of vocational counseling,life skills training, and shop classes. From October 1, 1982 until August 31, 1983, the industrial host provided the entry-level skill criteria and a guarantee to employ the handicapped trainees who mastered it. At the school, the project also provided a part-time special needs teacher for training an additional twelve (12) handicapped students in the classroom in a range of assembly skills that would enable entry to employment at a later date.

After completing this program, through which they gained the social, personal and vocational skills to enable success in the competitive job market, seven out of the eight handicapped students found competitive employment. This compares with a total of 23 similarly successful of a total of 27 participants over the three-year life of this program. The program continues under joint state, local, and host industry funding.

The other eight exemplary and innovative projects were funded to accomplish a variety of objectives primarily related to the development of high quality vocational education programs for urban centers in Massachusetts. All of these projects correspond with high labor market demand fields and the results of these projects continue to serve the needs of secondary school students and adults, including economically disadvantaged individuals. The following project reports are presented to illustrate the outcomes and impact of these exemplary and innovative endeavors.

Technical Skills For the Eighties, Blue Hills Regional Vocational-Technical School

A grant for up-to-date computer equipment and for a recruiter funded an innovative summer program to attract minority and special needs students from nearby inner cities to this postsecondary school. The equipment included multi-meters, oscilloscopes, computer terminals, a computer-aided drafting plotter and other computer accessories.

After early publicity in a local newspaper, the recruiter visited many high schools, a wide range of community-based and school organizations, and finally in October ran an advertisement in an annual school and college guide. These efforts brought to the program numerous women, blacks, hispanics, handicapped and disadvantaged applicants.

With counseling and pretechnical and remedial training as individually needed, the students were rotated through career option sessions in digital electronics, electromechanical drafting, business programming and word processing and health. Thus prepared, 90 per cent of the 80 participants were selected and moved into regular school training programs utilizing the purchased equipment during the 1983-84 school year, to eventually qualify for the Associate in Applied Science degree.

The equipment which the school had not been able to purchase in recent years because of financial constraints served not only project participants but also all students, by upgrading the school's training capabilities in all areas and ability to develop unusual new programs needed in new and emerging industries. The equipment is expected to be heavily utilized in locally funded programs.

Application of Computer Literacy to Vocational-Technical Programs, Greater Fall River Regional Vocational Technical School

In the Application of Computer Literacy to Vocational-Technical Programs, Greater Fall River Regional Vocational Technical School developed a pilot program to emphasize computer literacy as a means of teaching occupational skills for new and emerging industries. During this program, 245 students, including 57 females, 29 handicapped and 18 disadvantaged students were introduced to the state-of-the-art trade equipment and computer hardware which was funded by this grant. The equipment funded included a computerized milling machine, a photo-typesetting machine and a microcomputer menu planner, inventory controller and stock rotation system for culinary arts applications.

This program introduced students to micro and mini computers in data processing laboratory environments, and made work stations available where students could interact with a large scale operation and develop their own applications. This was followed by an emphasis on specific trade applications with hands-on instruction on the aforementioned equipment.

Such computerization in the shop areas attracted non-traditional students, as well as special needs and limited-English proficient students who might be unable to work the corresponding mechanical equipment, thus enhancing their employability. All students gained the knowledge and skills to be more competitive in the job market.

Project staff publicized plans for the project during the school's annual parents night followed by information to students on applicant's night, and also at Advisory Council meetings. Later inquiries, some through ERIC, came from as far away as the University of Southern Illinois and a school district in Michigan. Plans have been made for an open house to be made available to regional and central office staff related to this project.

Specific Writing Instruction and Training in Computer Hardware, Greater Lowell Regional Vocational Technical School

Project SWITCH was designed to retrain displaced workers to enter the high technology industry as technical writers. Prerequisites for enrollment were 1) layoff from a public sector job, 2) Massachusetts residence, 3) a bachelor's degree. The grant funded salaries for curriculum development and instruction in technical writing and computer hardware, analog and digital electronics, and programming in BASIC and COBOL, plus weekly job development workshops. This was all planned, written and coordinated with industry and delivered as scheduled.

This program gave 1,000 hours of intensive training after school on weekdays and all day Saturdays to 30 participants for 22 weeks. The participants were 90 per cent successful in qualifying for jobs paying $18,000 a year or more as technical writers on new computer products for the high technology industry or as mechanical specialists in diagnostic procedure writing and maintaining smooth documentation.

A news release to United Press International early in the project brought many inquiries from other states. Administrators from the Tennessee Valley Authority made a two-day on-site visit to see how Greater Lowell's retraining project might be applied in the event of any TVA worker layoffs.

At the end of this project, the curriculum that was developed was made available to the school's regular day programs in data processing and electronics.

Project Programmer, Quincy Public Schools

Project Programmer provided 16 computer terminals, a microcomputer host system and software for a high school computer education laboratory. Recruited by the Guidance Department, 140 disadvantaged and unmotivated students, including 60 females, received training on this equipment for entry-level data processing jobs.

The students gained "hands-on" experience in BASIC and COBOL while they learned to develop and organize input data and to design programs. At the same time, the newly available terminals gave instructors the means to emphasize career opportunities, especially in the nontraditional ones in high-technology industries.

Seniors acquired immediate skills enabling part-time employment in entry-level positions aranged by the school's work-study coordinator. Their "hands-on" experience prepared them for further training in the data processing field as it also increased their employment opportunities.

Visitors from other school systems, learning of the project from the local paper and from equipment suppliers, visited the school to see the course in action. Students in other studies utilized the system's word processing capabilities when terminals were free to develop their term papers.

For the city's three high schools, this grant solidified a fragmented situation by enabling a central clearinghouse to keep track of training activities in all three high schools and improved the planning process as well as making this computer literacy program possible. The program will continue and expand under local funding.

Basic Vocational Language & Skills Training, Montachusett Regional Vocational Technical School

The Montachusett Basic Vocational Language and Skills Training Program helped 105 students from priority populations to make soundly based choices about vocational training and provided computer assisted instruction in job related skills in a 20-day summer program. Those enrolled in the project were dropouts, potential dropouts, new applicants, and students with substantial special needs.

Project staff set an evaluative model using eight Singer stations purchased under the grant to assess the abilities of the participants. Each was allowed to select up to five of the eight available trade areas for testing. Each received a computer-generated analysis of the test results.

Also funded was a microcomputer assisted instruction model educational software. This model presented nineteen computer software topics dealing with the world of work.

Montachusett publicized the project at an early stage, inviting representatives from twelve other vocational schools in the state in addition to the thirteen sending school districts to a half-day software review program. After the project, the software programs were made available to comprehensive and vocational schools. This program development grant of a type new to the school, enabled it for the first time to offer a wide scope of services on a year-round basis.

Although this project was not continued, the equipment purchased by it continues in use at the school under locally funded programs, in which some aspects have been expanded.

Project CAD/CAM, Worcester Industrial Technical Institute

The computer assisted drafting (CAD) program at the Worcester Industrial Technical Institute represents the latest in technological breakthroughs. This program also represents a worthy example of federal, state, local, and industry cooperation to affect a significant upgrading of program offerings in public vocational education. The Computervision company, a manufacturer of large scale CAD and other high technology equipment, provided a corporate donation of equipment which as been valued at $545,000.

The day program served 85 students including eight females. Students received group instruction and individual attention as they learned CAD terminolgy, machine operations, and systems concepts. The three work stations include a keyboard, an electronic pen and tablet, a video display terminal and a hard copy printer. Also included is a plotter and a line printer. The Institute has plans to use this equipment with appropriate software to link the CAD program in the drafting department with the Computer Assisted Manufacturing (CAM) program in the mechanical lab.

An interesting feature of this project was the professional improvement of vocational teachers at the Worcester Industrial Technical Institute and the faculty of the Worcester Polytechnical Institute, a noted technical institution of higher education. The faculty of Worcester Polytechnical Institute provided in-service training to the vocational instructors on the advanced level of drafting knowledge required to operate their advanced machinery. In fact, the Computervision equipment was one generation newer than the CAD machinery at Worcester Polytechnical Institute.

Local Advisory Councils

GOAL 6: TO INCREASE THE EFFECTIVENESS OF LOCAL ADVISORY COUNCILS.

Membership for local advisory councils was recruited from local business, labor, and industry. Advisory councils met to ensure that the curriculum and equipment were up-to-date and students were being effectively trained for employment. As a result of this liaison, many programs received donations of time and equipment.

The following project descriptions attempt to show the variety of ways in which advisory councils were involved in federally funded programs. Many programs were improved as a result of this involvement.

Word Processing Technology, Bedford Public Schools

The advisory committee advised high school staff on the need for office personnel who are trained on word processing equipment. The business and office teaching staff completed an inservice word processing training program at the Digital Equipment Corporation training center. The advisory committee's involvement resulted in the donation of equipment and professional services for the word processing skills training program.

Word Processing, Hampshire Educational Collaborative

This project funded a half-day word processing program for 11th and 12th grade students. The instructor, active in a business organization, successfully recruited several members for the advisory council. Advisory council members recommended new software which was purchased with grant money. Individual members also provided students with job contacts.

Word Processing for Job Placement, Northboro/Southboro School District

The advisory committee assisted in the development of a word processing center. During the implementation stage, the advisory committee made recommendations about the selection and configuration of the equipment that was relevant to the project and complemented the school's existing computer system. The advisory committee encouraged the school district to take advantage of a corporate contribution of hardware and software. Ninety students were trained and thirty-five program completers received job offers.

Expanding Options in High Technology, Worcester Public Schools

Eighty-three secondary students participated in a half-day skills training program in graphic communications and electronics. Advisory council members assisted in the correction of a number of implementation problems in the area of facilities, equipment, and staffing. Through the efforts of the advisory committee and school district staff, a cooperative program was established with a large insurance company in the Worcester area. This liaison provided the graphic arts department with employment data, site exploration, and teacher training. The graphic arts program has emerged as a sound training alternative for students enrolled in the Worcester Public Schools.

Project Support III, Medford Public Schools

Project Support was designed to replace obsolete and worn out equipment in the trade and industrial shops. Working with instructional staff, craft advisory committees made suggestions and assisted in developing equipment listings to represent the latest developments in the field. Major equipment purchases included an electronic alignment system, mobile floor crane, and lathe motor. More than three hundred vocational students benefited from the updated equipment.

Advertising Art Updating, Blue Hills Regional Technical School

The advisory committee recommended the purchase of graphic arts equipment which enabled students to produce quality art work, still photographs, and motion picture sequences for multi-media presentations. To keep up with rapid technical advances in the advertising industry, the advisory committee recommended the acquisition of microcomputers and a color monitor. In support of this recommendation, three microcomputers and a color monitor were added to the fiscal year 1984 budget.

Fast Foods Management, Pittsfield Public Schools

Noting that five new bakery shops had opened in Pittsfield in the last year, the advisory council recommended a unit in baking. Committee members felt that training in baking would assist students in finding employment.Responding to Advisory Council input, a unit in baking was added to the fast foods management program.

Training Alternative Populations, Worcester Public Schools

This program gave 40 handicapped students intensive training in quantity foods or building services. After reviewing outcomes of the program, the advisory committee recommended expanding the quantity foods component. This was acted upon for fiscal year 1984 and a restaurant serves the public on a daily basis.

Marketing and Distributive Education for the Deaf, Boston Public Schools

Multi-handicapped deaf students received instruction and job supervision in the area of marketing and distributive education. The Industrial Advisory Committee made up of individuals from fourteen local businesses and industries, played a significant role in the development and implementation of the program. The committee provided consultation services, inservice training, and assisted with curriculum development. Graduates of various programs were hired by advisory committee members.

APPENDIX

Board of Education Meeting: May 30, 1984

Appendix A

Responses to the Recommendations Contained in the
Advisory Council's 1983 Annual Report

RECOMMENDATION

1. THAT THE MASSACHUSETTS ADVISORY COUNCIL ON VOCATIONAL-TECHNICAL EDUCATION AND THE DIVISION OF OCCUPATIONAL EDUCATION JOINTLY CONDUCT A STATE-OF-THE PRACTICE STUDY OF THE VOCATIONAL EDUCATION DELIVERY SYSTEM IN MASSACHUSETTS.

RESPONSE

1.1 This recommendation, as noted in your Annual report, is presently being addressed. The result of The State-of-the Practice Report will be included in the council's 1984 Annual Report.

RECOMMENDATION

2. THAT THE STATE BOARD OF EDUCATION UNDERTAKE AN INTERNAL REVIEW OF ALL STATE POLICY, LEGISLATION AND REGULATIONS WHICH BEAR ON STATE PURPOSES FOR OCCUPATIONAL EDUCATION, TOWARD THE END OF EVENTUALLY ESTABLISHING A COMPREHENSIVE STATE POLICY FOR EDUCATION, TRAINING AND EMPLOYMENT.

RESPONSE

2.1 The Department of Education completed a revision of the regulations, commonly known as "Bulletin 326" which govern state-aided vocational education under G.L. Chapter 74. "Bulletin 326" had not been revised since 1951. These revised regulations are now entitled "Regulations Governing Vocational Education under G.L. Chapter 74" and became effective on September 1, 1977.

2.2 In March, 1978, the Department of Education filed legislation to further clarify certain definitions under the Vocational Education Law, Chapter 74. These revised regulations have clarified the statutory definitions in ways that reflect the Board's policy to support new and emerging occupations, and at the same time eliminated those provisions relating to the sex of pupils that were inconsistent with current laws.

2.3 The Division of Occupational Education has established an internal committee of regional and central office Occupational Education staff

to review Chapter 74 regulations and relevant continuing and emerging issues which may impact upon said regulations. Because of the nature of the task, committee efforts will continue through the summer of '84. It is anticipated that the Committee will present its findings and recommendations to the Associate Commissioner by September, 1984.

2.4 Also, see response 3.1

RECOMMENDATION

3. THAT THE DIVISION OF OCCUPATIONAL EDUCATION AND THE DEPARTMENT OF MANPOWER DEVELOPMENT JOINTLY PRODUCE A PLAN TO ADDRESS THE FOLLOWING (MINIMUM NUMBER OF) TOPICS:

A. Ways in which vocational schools can achieve closer ties with organizations having economic development objectives.

B. Ways in which vocational schools can respond more quickly to changes in labor market needs in Massachusetts and New England.

C. Ways in which vocational schools, administrators and service deliverers can tailor programs to specific employer and student needs; and

D. Ways in which state level agencies can provide to local level service deliverers improved knowledge and technical assistance regarding economic development strategies.

RESPONSE

3.1 The link between education and employment is a critical element in the State's economic development. As an expression of its concern that schools adequately prepare youth for employment, the State Board created a Task Force on Public School Youth, Education and Employment in October of 1982 to advise the State Board, local schools, state agencies and the public on ways to improve programs which prepare young people for employment.

In December 1983, the State Board received and approved, with commendation, the Report of the Task Force. Over the next six months, the Department will be preparing a comprehensive Youth Education for Employment Policy that incorporates the recommendations of the Task Force on Public School Youth, Education and Employment.

3.2 The Division of Occupational Education is working with the Division of Employment Security to develop a publication on local labor market needs, industry growth and decline, and supply of labor from training programs for each of fifteen (15) sub-state areas of the Commonwealth. These booklets will be distributed at a training session for vocational school administrators which will be a joint presentation by staff of both Divisions at the June, 1984 Professional Improvement Conference.

3.3 The Division has sponsored a total of four days of training (March and May, 1984) on the subject of improvement of academic curricula for technology training programs. This training program was organized in collaboration with the Massachusetts Association of Vocational Administrators and the Massachusetts Vocational Curriculum Resource Center and over 220 vocational school teachers, coordinators, and administrators participated in the two conferences.

3.4 The Division will continue to support the development and implementation of a stronger technology based core curriculum to complement specific subject skills training as a way to enhance the advancement as well as employability of vocational students.

3.5 The Division will continue to support the dissemination of information about programs which provide training tailored to specific employer and student needs. The Massachusetts Vocational Curriculum Resource Center is the centerpiece of this activity.

RECOMMENDATION

4. THAT THE DIVISION OF OCCUPATIONAL EDUCATION AND THE DEPARTMENT OF MANPOWER DEVELOPMENT JOINTLY UNDERTAKE A STUDY TO ASSESS THE DEGREE TO WHICH THE QUALITY AND AVAILABILITY OF VOCATIONAL EDUCATION AND OTHER EMPLOYMENT AND TRAINING PROGRAMS ARE FACTORS IN THE STARTING OR EXPANSION OF BUSINESS IN MASSACHUSETTS.

RESPONSE

4.1 The "1982 Massachusetts Employers/Satisfaction Survey" was conducted between April of 1982 and January of 1983. This ten-month study was undertaken "to determine the level of employers' satisfaction with the skills of vocational education graduates in Massachusetts." From the data collected from 43 selective vocational secondary schools throughout the Commonwealth, over 7,300 former students from the Class of 1979 and 1980 were identified and contacted. Data were collected from approximately 1,550 former students and 800 of their employers/supervisors regarding several aspects of the former student's vocational training and/or job performance. The major findings of the study are:

- Of the 775 employers and supervisors throughout the Commonwealth who participated in the study, 80-90% rated former students' vocational training and/or job performance as "good" to "very good" in terms of Technical Knowledge, Work Attitude, Work Quality, Overall Training/Performance, and Relative Preparation. The findings also indicate that supervisors tend to be almost as positive in rating the training or job performance of former students who are employed in jobs which are not related to their field of training. Of the five aspects of occupational training and job performance examined--employers gave one a consistently high rating--Work Attitude. This finding appears to support the notion that the vocational schools impart more than skills to their

students, they provide them with an outlook and demeanor which is recognized and appreciated by employers and supervisors.

- Analysis of the survey data reveals that 80% of the employers rated former vocational school students as "better prepared" than co-workers in similar positions. In a time of technical transition and economic adjustment, this finding should be particularly reassuring to vocational educators who often lack the capital equipment and financial resources to keep abreast of short-term shifts in the job market. This finding appears to provide the students with standards and attitudes which are both beneficial and transferable to other areas of employment.

- In summary, the 1982 Massachusetts Employer Satisfaction Study has found that both employers, supervisors and former students of the state's vocational secondary schools have given them high marks in terms of occupational training and job performance of their graduates.

RECOMMENDATION

5. THAT THE DIVISION OF OCCUPATIONAL EDUCATION COMPILE AND DISSEMINATE A PROGRESS REPORT ON ACTIONS TAKEN BY THE BOSTON SCHOOL DEPARTMENT, AS OF DECEMBER 31, 1982, TO ADDRESS THE FINDINGS CONTAINED IN (A) AN EVALUATION OF OCCUPATIONAL EDUCATION IN THE BOSTON PUBLIC SCHOOLS, JANUARY 31, 1981; (B) AN EVALUATION OF OCCUPATIONAL EDUCATION PROGRAMS AT THE HUBERT H. HUMPHREY OCCUPATIONAL RESOURCE CENTER, AUGUST, 1982; AND (C) AUDITOR'S REPORT 035--BOSTON PUBLIC SCHOOLS, JUNE 15, 1981.

RESPONSE

5.1 In its December 23, 1982 Memorandum and Orders of Disengagement, the Federal District Court ordered the Massachusetts Board of Education to take certain responsibilities for the ongoing resolution of the Boston School Desegregation Case for a minimum period of two (2) years. Vocational and Occupational Education are key components of the case. The Court has identified a listing of 12 outstanding orders which the Department of Education must monitor. Vocational/Occupational Education is one of those orders.

The Division of Occupational Education has monitored several areas with respect to Vocational/Occupational Education in the Boston School Department. The State Board has submitted comprehensive reports to the Court on the following dates: June 23, 1983 and January 14, 1984. A third report will be submitted to the Court on June 26, 1984. These reports are available for review.

The Division feels its primary responsibility is to monitor and report on implementation of the Court's desegregation order, and that, in the process, the evaluation and the audit findings are also addressed.

The Division agrees with the Council that if the recommendations contained in the audits were fully implemented, vocational education in Boston, indeed, would be improved.

RECOMMENDATION

6. THAT THE DIVISION OF OCCUPATIONAL EDUCATION DEVELOP AND DISSEMINATE A POSITION WITH RESPECT TO THE FOLLOWING ISSUES:

A. Is vocational (job specific) preparation best carried out on the secondary or postsecondary level or by some mixture of the two? Why?

B. Would offering all vocational exploratory programs at the 9th and 10th grade levels in local high schools and intensive skills training programs at the 11th and 12th grade levels in regional vocational schools better meet students' needs and make for a more cost-effective delivery system? Why or why not?

C. (How) can industrial arts and other occupational education programs offered in comprehensive high schools be restructured to make them more skills intensive?

D. Should industrial arts receive federal funding under P.L. 94-482? Why or why not?

E. Should the present definition of what constitutes vocational education under Massachusetts General Laws Chapter 74 be broadened? Why or why not?

F. How might current state laws and regulations regarding approved vocational programs and required subjects be modified in order to guarantee full access by all students to vocational offerings in comprehensive high schools?

G. How can true articulation and cooperation between occupational and vocational programs and between occupational/vocational programs and the general education community best be effected?

RESPONSE

6.1 While limited staffing prevents the Division from assigning staff to the development of positions with respect to each of these issues, the Division will consider the establishment of a special committee, made up of representatives from various organizations and communities, to discuss the listed issues and other pressing concerns that impact the scope and quality of vocational education.